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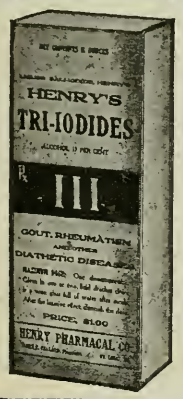

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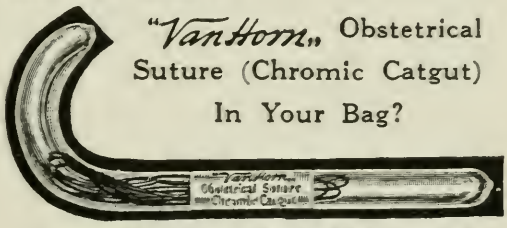

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CHICAGO

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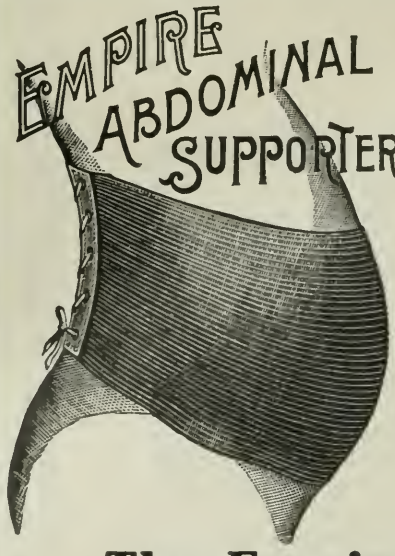

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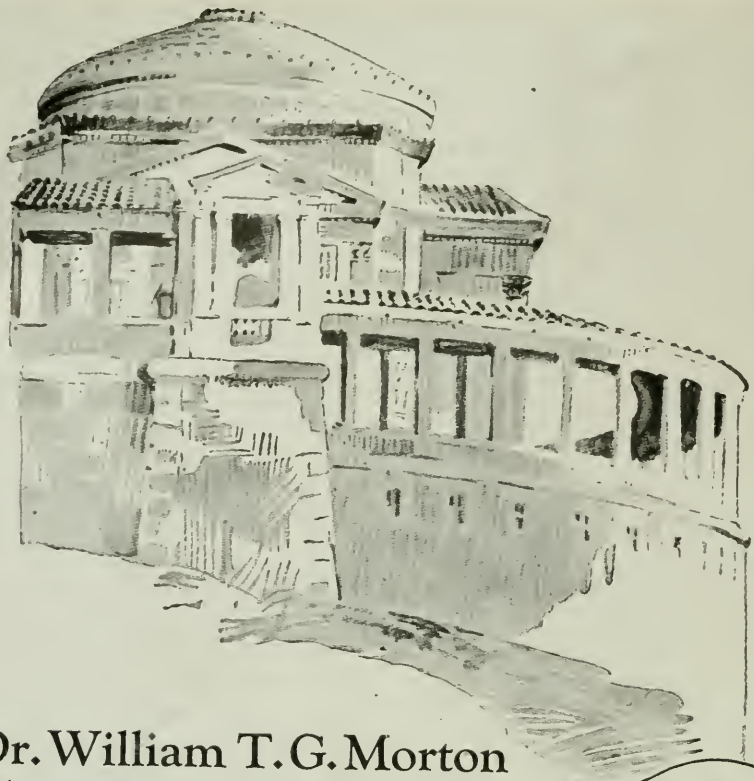

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The American Journal of
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Vol. 28, No. 1 January, 1921

What Will the New Year Bring?

CLINICAL MEDICINE wishes to Everybody a happy and prosperous New Year. May 1921 witness the deletion of the evil consequences of the war; may it start us anew in peaceful, well-determined, and fruitful pursuits; may it help us to settle the many difficult problems that are before us, as a profession and as citizens of the greatest country on this beautiful wide earth.

On commencing the twenty-eighth volume of CLINICAL MEDICINE, we are naturally reminded of some of the phases of our work, our efforts, our struggles in years gone by. When the old ALKALOIDAL CLINIC (between ourselves, we talk, to this day, of "THE CLINIC") was a lusty youngster, what fights we had! What objections we had to meet! What ridicule to endure, all on account of our unshakeable, optimistic confidence in the ability of the right drug given in the right dose, for the right indication, at the right time would produce good results. Those were the days when therapeutic nihilism was rampant; when medical men high in their profession pointed stubbornly to pathological changes in the cadaver, as found on postmortem examination, and inquired sneeringly: "Do you mean to say that you think you can change that sort of thing with a dose of medicine?" The question was justified—if we assumed (as we had no right to assume) that these changes, these alterations in the structures of organs, constituted the disease *ab initio*. As a matter of fact, they did not, and do not. In every disease, there is a time when the anatomical structure of the organs is normal, when there exists but an irritation, possibly a slight congestion, an inflammatory swelling, a tendency to slight changes that may be transitory. At this period, surely, properly selected remedies are capable of influencing the

vital processes in such a manner as to restore normal function.

It has become an important task, for present-day research workers, to go back of those hopeless end-results found in the dead body, far back to the time when disease is in its incipiency. First, the attempt was made to study the patient as early as possible; then, when it became possible to reproduce certain diseases artificially, in animals, the various stages and processes were investigated carefully from the earliest periods. Thus, it has come about that disease has come to be recognized as, first, a disturbance of function on the part of one or several organs, which, if continued, will have the result to produce lasting changes in the structure of organs. BUT, it has been found possible to remedy the functional disturbances in many instances and to prevent the development of actual organic disease. Incidentally, it may be said that this tremendous progress was possible only through the agency of animal experimentation.

The consequence is, that "functional disease" no longer is neglected as of minor importance. It has come to be realized that disease should be combated at that period when it *is* functional. Most important of all: It has been shown that functional disease is amenable to drug treatment, as also to physiotherapeutic measures of various kinds.

The consequence is, that symptomatic treatment, that butt of ridicule in the halls of the "learned", twenty-five years ago, no longer is sneered at or jeered at. It has been realized that symptomatic treatment may be, and is, the means of warding off serious harm, providing that it be applied correctly and with a true understanding of normal as of disturbed physiology. The anatomical study of disease has yielded its place to functional study. The result is, better service to the sick; greater satisfaction to the physician.

In all these years, we never have found cause to retract or recede from our firm confidence in the power of good, well prepared and well administered drugs. Our faith of years ago soon became certainty. Time has vindicated it.

All this means, that the study of drugs needs to be carried out with ever increasing enthusiasm, persistence, accuracy, and perseverance. Also, it may not be forgotten that those first beginnings of disease, those manifestations that are but functional disturbances, are witnessed more particularly by the general practitioner. It is he who is consulted first of all by the people. It is distinctly up to him (as was pointed out clearly and insistently, by Sir James Mackenzie, in his "Future of Medicine") to supply the lacking information in our knowledge of disease, by studying his patients carefully and by keeping exact records which should be continued for years, and be collated and communicated to others. The coming years will bring the time when the general practitioner will come to his own as the most important factor in the working force of the medical profession. Surgeons, specialists, teachers, all will have to look to him for information that they have no means of acquiring without his assistance.

Does that make you feel good? Does it enthuse you and make you want to buckle down and study your patients? Does it urge you to keep records and think well what are the possibilities in each "case" that you have under treatment? It's up to you to help the entire medical profession to secure a complete and correct picture of disease from its earliest beginning. It is not merely a question of relieving Johnny's tummy ache or Sally's "misery". It is a question of finding out what is behind the tummy ache and the misery. If you do not write down the results of your observations, with the same finnicky, painstaking care that the "provers" of homeopathic remedies exercise, in their tests, you will fail in your duty to your colleagues, to your profession, and to your fellow man.

There are other phases in the work of the medical profession that require adjustment and are capable of improvement. First of all, physicians as a class are literally the stepchildren of society. Despite the acknowledged fact that, here and there, enormous fees are demanded and paid for medical or surgical services, the rank and file of the medical profession, especially the practitioner in small town and in country receives remuneration at rates that are altogether insufficient to cover his ever-increasing living expenses. True; physicians often are themselves to blame; they are notoriously poor business men and worse collectors. They do not keep exact records of their services; nor do they col-

lect closely enough. Any little tale of woe and of hard times will induce them to "forgive their debtors" where such forbearance is misplaced. Physicians should adopt business-like methods and adhere to them. They should demand adequate and prompt payment for their services wherever their clients are in a position to pay. Even in cases of poverty, it is not always well to extend charity indiscriminately. Often it is true charity to force the poor man to exert himself so as to pay his doctor's bill. What if he can not buy a Victrola or a flivver! Chances are, that the Doctor can not afford a Victrola himself and that his flivver is worked for every ounce of energy that is in it; and, not for pleasure but purely in the line of work.

There never was a time; we venture to say, when study—of medical journal and of books—was of so great interest as it is at the present time. Look up, in the nearest Medical Library, the first volume of "The Oxford Medicine" and read the first two articles, those by Professor Christian of Harvard, and by Sir James Mackenzie. If, after having read these, you do not go home imbued with a new enthusiasm to get busy and to do things, I miss my guess. These articles are enough to brace up the worst laggard, even if he has—say, hookworm, physically or mentally.

In his social and economic relation to the commonwealth and to society, the general practitioner is very likely to experience more or less of an adjustment. And, mind you, this may come with an unpleasant jar. Compulsory Health Insurance, State Medicine, Socialized Medicine, Nationalization of physicians—all these are words to conjure with. They are held before the eyes of the unthinking, of the rabid clamorer for "better" things, of all those who want something for nothing, as a panacea of all ills that afflict mankind The most plausible and attractive plans are proposed by political jobbers, by uplift cranks, by self-seekers, by parlor bolsheviks, all promising to benefit the dear working man. It is not admitted, however, in all these visionary or crazy schemes that they would amount to class legislation in which one class, the workers, are benefitted to the serious detriment of another class, the physicians. It behooves us, not only as physicians but as citizens, to watch well the doings of our state legislatures; to keep in close touch with our representatives in state senate and house, and also in the national Congress; to speak to our clients about these various alleged millennial plans, telling them just exactly what they would in reality mean. In short, it is unavoidable that we must wake up and realize that we are not only attendants at sickbeds; that it is, rather, our duty to bestir ourselves for the benefit of our profession; that we are bound to take part in the social and political life of our country.

The coming year is pregnant with promises and with threats. Will its course be beneficial? Will it bring about greater prosperity, deeper contentment, better accomplishment of things worth while? Or, are we going to permit the rabid, irresponsible dreamers, and worse, to upset our orderly conditions and jeopardize our wholesome progress by foolish and impossible revolutionary legislative experiments?

Let us hope for the best. May the New Year bring only what is good and beneficial.

He who lives wisely to himself and his own heart looks at the busy world through the loopholes of retreat, and does not want to mingle in the fray.—Hazlitt.

THOSE UNPRINTED PAPERS

A few weeks ago, we wrote to a number of our subscribers asking them to contribute articles on subjects in which they were particularly interested, to be published in the January issue of CLINICAL MEDICINE. The response to this request was very gratifying. We received so many communications that it was quite impossible to print them all in this issue.

The fact that some of these papers do not appear in the January issue of CLINICAL MEDICINE does not mean that we do not appreciate them or that we do not want them. The wealth of material that we had on hand made it necessary to make a selection in which expediency was the deciding criterion. All the papers that we have on hand will receive publication as early as we can make room for them.

This experience shows that the readers of CLINICAL MEDICINE not only are interested in the journal but that they are students and keen clinical observers. That is, of course, as it should be. By writing down the results of clinical observations, by putting our ideas definitely into words and sentences, we do not only communicate use-

ful instruction and information to our fellows but we benefit therefrom ourselves, since we are obliged to formulate our ideas and views clearly. As we have said elsewhere, the man who writes a paper for publication does not only benefit his fellowmen but he himself receives ample remuneration for his trouble because of the necessity of developing his views lucidly and of giving a definite account of the problem.

During this coming year, we are confident that the readers of CLINICAL MEDICINE, more than ever before, will realize the fact that CLINICAL MEDICINE is their own journal; that it is just exactly what they want it to be. The editorial cabinet, which is composed of five physicians, is by no means exclusive. Indeed, every subscriber to CLINICAL MEDICINE is expected to be an associate, or contributing editor. Don't forget that, please, but rather keep in mind that CLINICAL MEDICINE is your journal and that you are not only a subscriber but one of its contributing editors.

Let your words be few and digested; it is a shame for the tongue to cry the heart mercy; much more to cast itself upon the uncertain pardon of others' ears.—Bishop Hall.

AN EXPERIENCE WITH BENZYL BENZOATE

Here is a case that interested me. The patient was a young married woman, about thirty-five years of age. For more than seven years she had suffered from severe pains in the back, running into the bladder, simulating attacks of renal colic. During this period, she had been in charge of a number of prominent Chicago physicians. X-rays had been taken, but, no stone was discoverable. Securing no relief, she finally consulted a prominent Chicago surgeon. He placed her on a rigid diet, excluding protein and other acid-forming foods. After six months or more of this treatment, he operated, as there was no relief. No stone was found, but a hydrosalpinx was uncovered and removed, and pressure upon the ureter relieved.

In spite of this operation, however, the condition grew worse instead of better. The patient lost steadily in weight, and became very despondent. The spasmodic pain recurred several times a week, and became more and more persistent. The surgeon finally suggested that the only hope of relief he could see was, removal of a kidney. At this point, being interested in this patient, I suggested to the doctor that a trial be made of benzyl benzoate, on account of its established efficacy in the control of spasmodic pains of all kinds.

The surgeon very kindly consented to give the remedy a trial. It was given continuously every three hours for the first three or four days. Relief was immediate. The benzyl benzoate was then ordered to be given only when there were signs of beginning pain. Thus given, it served to break up the attacks completely.

Its use was begun a little more than two months ago. The attacks have now entirely ceased; the patient has returned to a normal diet and is now eating all kinds of food and seemingly being entirely free from her trouble. She has gained about twelve pounds in weight and is now in better health than she has been for years.

I report this case in detail because it shows what may be accomplished with this remarkable remedy. The evidence accumulating seems to show that it is, by all odds, the most efficient remedy we have for spasmodic conditions affecting the involuntary muscles, whether painful or not. Where failure follows its use, I have found that usually it has been administered without a clear conception of its indications. Benzyl benzoate is not a reliever of pain *per se*. It does not deaden sensation like opium and morphine, but, when the pain is due to spasm, relief usually follows its use.

Benzyl benzoate has already been used in thousands of cases by thousands of physicians. Thus far, no evidence has developed that it is toxic, habit-forming, or in any other way dangerous to use. In fact, all evidence points directly to the contrary. It is a safe drug, it is an efficient one, but, like every other drug, it must be used in the right cases to produce typical results.

If you want to be miserable, think about yourself, about what you want, what you like, what respect people ought to pay you, and what people think of you.—Charles Kingsley.

PHYSICIANS' RECORD SYSTEMS

With the existing money stringency and the need to look closely that every dollar earned shall come in and be put to work in its proper place, in short, that all bills owing you shall be paid promptly, so that you may be in a position to pay your creditors in

your turn, it is proper, Doctor, to inquire whether the system, that you are employing for keeping your accounts and collecting your bills, is the best one possible. Are you still content with the old-time daybook and ledger system, which requires weekly, or monthly, posting (that is never caught up); do you rely on your memory, do you carry no other memoranda of moneys receivable than the entries in your call-book?

If you do, Doctor, you are robbing yourself and your family, and you are doing wrong to your clients.

Are you "too busy" to make out your bills, and put off your patients, when they ask for a statement, with an airy: "Oh! I'll attend to it by and by, when I have more time"? If you are, or think you are, you are fooling yourself badly; and, if you do, you have only yourself to blame if your patients neglect your statements when you do send them out; and if they "forget" to pay your bills.

The deplorable financial condition of many physicians is entirely the result of their own neglect to pay proper attention to the financial, or business, side of their work. The slowness of many patients in liquidating their physicians' bills is due to the fact that many medical men treat their financial transactions with contempt, as though it did not matter to them whether their patients paid up or not. Yet, the doctor may have, that morning, trimmed the cuffs of his shirt to hide their frayed edges; his wife may have implored him tearfully for some money to buy shoes for Billy and Jenny; she may be at her wits ends to pay the grocer bill; and she sighs deeply and hopelessly when she puts on her afternoon gown, her best, to go visiting. It is so anciently out of date! But, what's the use asking the Doctor for money for a new one. He'll simply say, when Smith, or Jones, or Johnson, pay those big bills, the kiddies shall have shoes and you shall have a new dress.

The pity of it! The shameful carelessness and asinine neglect that pampers shiftless patients and wrongs one's own flesh and blood!

Wake up, Doctor! Get a move on you. Do! Investigate the various excellent physicians' account and record systems on the market and install one, even if you have to go in debt for the first outlay. It's dollars to doughnuts that the thing will more than pay for itself inside of one year. That, at the end of that year, you will have money in the bank and will be owing nobody, while the wife and the kiddies will be well clothed. Don't you think that they will be happier? Don't you see that, then, you will be doing better work, will be more cheerful and better able to attend to your practice because free from needless worry?

Charity is a beautiful word meaning a beautiful thing. However, the greatest virtues may be made into horrid vices through abuse. To neglect making patients pay for services received is not charity. It is not living up to the high ideals of the healing profession. It is not something beautiful, something to be emulated, imitated. It is mere silly drivel, slipshod carelessness, laziness, even cowardice. It indicates an enfeebled moral fibre. Although we all admit that, very occasionally, patients truly are too poor to pay and, then, gladly give service for charity's sake—most poor pays are really deadbeats and deserve no pity.

Get backbone, Doctor. Keep business-like systems for your accounts and records. Have them in such a fashion that they will stand legal inquiry. Send out your bills every month. Insist on their being paid. Then, you will be able to pay your own bills promptly. It makes one feel mighty good to be able to discount one's bill; to be a "preferred customer". And, after all, it's easier than to let things slide. Now is a good time to begin.

Lots of folks get stalled early in life because they are muddle-headed. Muddle-headedness comes partly from an attempt to generalize on things of which one doesn't know the particulars, and partly from unwillingness to concentrate.—Guy Eastman Tripp.

YOU PAY AND I'LL PAY

The story is told of the paint salesman whose sales were decreasing until he hit on the slogan "You paint your house and I'll paint mine." The slogan caught the popular fancy and the town was improved, houses were saved from decay and incidently the salesman sold paint. We shall be content if this little editorial brightens some of the dull spots in only a few localities. It may reach farther, but, if the above slogan "catches" in your neighborhood, it will mean much especially to the doctor who adopts the idea.

There is no better time during the year than just now to promote the debt-paying

habit. Starting in your town, it may become nation wide as with the Chinese.

Personally you will benefit on the basis of service rendered. If only the people who could pay, would pay! Make it a community matter. Interest your newspapers and your printers. Talk to your big people—your preachers and lawyers. Write to, or better call on, the officers of all societies and clubs. Do it quickly. Make a DRIVE of it. Inaugurate a "pay-up week" and for convenience make it the week of January 10th; although any week will do.

Naturally, in a country whose history goes back four thousand years, habit and custom are thoroughly part of the economic principles that govern the people.

Without going into the details of the Chinese annual pay-day, it remains that no one escapes from the custom. Even though everybody in China owes somebody, the creditors about equal the debtors in number and great is the rejoicing when the fortunate ones escape the creditor for another year ahead.

Dr. Arthur H. Smith in his "Village Life in China" refers at length to the custom that is ingrained in the nation.

The Chinese New Year is a day of rejoicing and every effort is made to square with the creditor before the eventful day.

Now, if your town has a Board of Trade or a Chamber of Commerce get it warmly interested. They should finance the cost of window cards. These and other suggestions as they appeal to you will lend emphasis to the thought and speed to its early success. This is a community welfare matter and as definitely a doctor's business as Board of Health problems. What's everybodies' business is frequently nobodies' business and therefore often neglected.

Don't let this idea of "You Pay and I'll Pay" get away from you. Promote it with confidence and your ultimate financial gain plus your sense of real service to your community will pay you well.

Most small men are opinionated, and the smaller they are the more opinionated they grow. They think that anyone who holds a different opinion from themselves is antagonistic to them, and they resent such opinions.—Guy Eastman Tripp.

COMPULSORY HEALTH INSURANCE

A good deal is being written in medical journals in opposition to the bills being introduced in various state legislatures for the purposes of establishing a system of compulsory health insurance which shall include as "beneficiaries" all those wage earners whose incomes fall below a certain minimum, say, $1200 a year, possibly more. A stated sum, something over twenty cents, is to be deducted every week from the wages of each insured person. A corresponding amount is to be provided by the employer and a third more is to be contributed by the state, being, of course, raised by general taxation.

In this system of compulsory health insurance, the intention is, to have those who are insured under its provisions attended by physicians for their accidents, illnesses, ailments, and so forth, as they may develop. A provision also is made to attend women workers or wives of insured wage workers, in confinement.

Theoretically, a system of health insurance would be a good thing. What the American workman does not like about it is the feature of compulsion. To physicians, the scheme is absolutely objectionable, because it lowers them to mere mechanical wage workers, obliging them to attend to a large number of patients for a very small "wage". The remuneration for medical services is absolutely inadequate, taking no consideration of the time and money expended by physicians in preparing themselves for the exercise of their calling, treating them not even as "skilled workmen" and subjecting them to the indignity of supervision through ignorant lay inspectors.

Altogether, the contemplated compulsory health insurance legislation possesses so many objectionable features that it is cause for astonishment that any movement of this sort could at all have been proposed in the United States. It may be understood that such a movement has been enforced under the paternalistic government of the former German empire. One can even comprehend the high-handed methods through which Lloyd George railroaded a similar movement through parliament, eight years ago, but, to inflict such peculiar legislation upon American citizens required more than unlimited gall and assurance.

Now, let there be no mistake. Physicians do not oppose health insurance as such, nor do they protest against attempts to improve medical practice where is requires it. What they do resent and what they justly

object to is, the attempt to enforce unfair class legislation through which one class, namely, the workmen, shall be benefited at the serious disadvantage of another class, namely, the physicians. Physicians are not willing, very naturally, to hold the bag; to do work and to pay for it, too; in order to satisfy the self-seeking aspirations of certain parlor socialists, uplift amateurs and other cranks. They resent being expected to work for cheap wages and, in addition, to be taxed for those sums that the state has to raise in order to make possible the scheme.

If the medical-practice laws are to be amended and improved, let the Solons in the various state legislature see to it that such class legislation as already exists is done away with. To take just one instance; medical students are admitted to the college only after having accomplished an equivalent of at least two years college work; in some colleges they even have to possess the degree of A. B. before they are permitted to go up for examination for the degree of Doctor of Medicine; and, before they can go before the state board to be examined for license to practice, they must spend no less than five years in the study of medicine and, in addition, must serve at least one year as internes in hospitals.

On the other hand, there are various kinds of "healers" permitted to exercise the healing art (in a fashion) whose education falls far short of that required of physicians. Among these, osteopaths probably have the most thorough training, and might, with some modifications of their courses, be accepted as proper practitioners with certain restrictions. When it comes to chiropractors, Christian Science healers, and various other persons who offer their services for treating the sick, and who demand remuneration therefor, it is quite evident that many of them "qualify" for their work after very brief and altogether insufficient study if any.

If our enthusiastic reformers and our legislators, who are so solicitous for the welfare of the workmen, desire to improve matters and to assure the best possible medical services for the sick, let them eliminate those "wild" practitioners, those irregular pretenders who play upon the credulity of the ignorant and take away their money under false pretenses, claiming to treat disease, while being utterly unfit to do so.

As for necessary reforms within the medical profession, we have always maintained that this profession may be trusted to bring about the needed reforms without washing its linen in public. Conditions have improved vastly in the course of the last fifteen years and are constantly being ameliorated.

Let the general practitioner watch the doings of the legislators. Let him keep track of those bills that are introduced and let him write to his representatives insisting in no uncertain terms that he will not stand for ill-conceived and injurious measures that are bound to fail in accomplishing their purpose.

Worry has a paralyzing effect on one's efforts—and it is absolutely needless.—Guy Eastman Tripp.

WHAT IS OBSOLETE IN DRUGS?

Anticipating the next revision of the Pharmacopoeia, some thought is being given to the question of deletion. As usual, a number of drugs will be officially dropped and this time, if the views of Bliss (*Med. Rec.*, New York, Aug. 14, 1920) are accepted by those in charge, more will be dropped than ever before. That deletions are desirable, nobody will dispute. But, how many? Just which drugs shall be dropped? The useless, the worthless, the inert, the obsolete, the drugs that have been displaced by better ones, as the tallow candle has been displaced by the kerosene lamp and that in turn by the electric light. Of course. Still, to name them is not so easy.

Bliss recently made the attempt. He sent a question form to the physicians of Atlanta, numbering 387. He asked each one to send in a list of such official drugs as might be dropped without loss to the therapeutist. Fifty percent of those addressed recommended dismissal for the following:

1. Althaea (73%), 2. Aspidosperma (52%), 3. Calumba (50%), 4. Cannabis (52%), 5. Caraway (50%), 6. Chondrus (63%), 7. Coriander (60%), 9. Eriodictyon (63%), 9. Frangula (60%), 10. Gambir (60%), 11. Guarana (55%), 12. Humulus (52%), 13. Kino (55%), 14. Lactucarium (68%), 15. Manna (60%), 16. Matricaria (70%), 17. Mezereum (76%), 18. Musk (60%), 19. Parsley Fruit (60%), 20. Pyrethrum (63%), 21. Red Rose (61%),

2. Sabal (50%), 23. Sanguinaria (50%), 24. Red Saunders (63%), 25. Sassafras (61%), 26. Scammony Root (63%), 27. Serpentaria (50%), 28. Storax (55%), 29. Sumbul (61%), 30. Elm (50%), 31. Xanthoxylum (61%).

With four or five exceptions, the drugs on this list would scarcely be missed if dropped. As to sanguinaria, sumbul, xanthoxylum, aspidosperma, lactucarium, and cannibis, these surely deserve to be retained, a fact none will dispute who really know them therapeutically.

Further, Doctor Bliss ventures to add for deletion squill, pepo, gelsemium and aconite. In point of fact, squill has steadily fallen into disuse. There are better expectorants, he asserts, without the undesirable collateral effects of this remedy, as upon the heart. Still, we ourselves have found squill so serviceable in numerous instances, that we should dislike to see it discredited officially. However, pepo is another antique deserving the fate of the has-beens.

But, when we come to the two last recommendations made by Doctor Bliss, we are amazed. To question the therapeutic virtues of aconite and of gelsemium! Anyone doing that is not, can not be, familiar with the pharmacodynamics of these really valuable drugs. He can have had no experience with them or else his experience is based on the use of inert or almost inert preparations. Let the doubter, in reference to aconite, say, forego the galenical fluids on the drugstore shelves and use for once at least the active principle, aconitine, and his doubts will be wholly and for all time dispelled.

It's mighty important for young men to choose work to which they naturally "take." It makes life so much easier. The fellow who is interested in what he is doing, and who profits by his mistakes, has a good start. Fuller wisdom will come with experience. The experienced man no longer rushes off to roads where the going looks good until he gets there. He doesn't jump at shadows, for he has seen them before.

TODAY'S TREATMENT OF MALARIA

In our November issue (p. 763), we published a letter from Dr. Beverley Robinson, of New York City, relative to the treatment of malaria, in which the doctor deplores the neglect into which two of the old-time remedies have fallen, namely, Warburg's tincture, and compound tincture of bark. The doctor's letter is timely, for there is, beyond doubt, a tendency to neglect much that is good in the therapeutics of the past. The discoveries of the laboratory, and the wonderful advances in diagnostic methods and preventive medicine, have justly aroused the enthusiasm of the younger members of the medical profession; and, less justly, they have come to belittle somewhat the science of therapeutics. It can not be denied that, in the colleges of today, therapeutics has received less than its due share of attention; in consequence, graduates go out hampered in the practical exercise of their calling. Unfortunately, many of these graduates are so wrapped up in admiration of surgery, that they speak with a good-natured contempt of therapeutics. This will be a drawback to them, for, we can not all be surgeons.

It is but another chapter in the old struggle between conservatism and radicalism. Every man should be conservative enough to hold fast to that which has done good service in the past, and radical enough to accept any new thing that proves worthy of acceptance. As in so many other phases of life, the problem is, to find the golden mean between the two extremes. The present writer feels just as strongly today the debt he owes to such men as Warburg, Huxham, Lauder Brunton, Loomis, Flint and many others, as he did a generation ago; perhaps more, because he is in a better position to appreciate the wonderful work done by those men in an age when they lacked most of the facilities which we enjoy. He was long ago convinced, as Doctor Robinson says, that Warburg's tincture, for instance, will give results in obstinate cases of malaria that are not obtained by quinine alone. While we all rejoice in the low death-rate from disease in the late war, we feel that it might have been lower still with a more scientific therapeutics. No doubt, the doctors at the front did the best they could under the circumstances, and, no doubt they were often hampered by lack of remedies and lack of facilities; still, reports from many different sources seem to indicate that there was much crude therapeutics. Most of the medical men at the front were graduates of the last dozen years or so, and it is perhaps not their fault that the therapeutics of many medical colleges is not up to the scientific standard which we have a right to expect in the

twentieth century. We agree fully with Doctor Robinson in giving full credit to the advance in scientific prevention of malaria; nevertheless, we plead for more general recognition of the fact that therapeutics is a science, and a rather neglected one at the present day.

The really wise man is the one who gets enjoyment out of his work as he goes along—who does not view happiness as a blessed state that will come only when he gets something he isn't getting now. Those who have constantly to look ahead for happiness, rarely reach it.—Guy Eastman Tripp.

NICOTINE AND STERILITY

In a recent issue of the *Wiener Medizinische Wochenschrift* (1920, Nov. 13), Dr. Leo Werdisheim cites an acquaintance as authority for the observation that, in Vienna, most women who at an early age had indulged in the excessive use of tobacco were sterile. Where the habit is adopted in later years, the sterility dates from that time. It is said that, in some lower races, it is customary to resort to the excessive use of tobacco in order to produce sterility.

Werdisheim points out that there are no true abortifacients. The irritation of the uterus which leads to abortion is produced by the action of a number of poisons that give rise to vomiting, nausea, vertigo, palpitation and convulsions. These as well as arrythmia, tremor of hands, and so forth, are symptoms of nicotine poisoning. For this reason, it must be assumed that habitual abuse of tobacco may induce abortion in pregnant women, especially in those of feeble constitution.

This, Werdisheim points out, may be particularly noticeable in Caucasian women in whom smoking has become customary recently. Among Turkish and Gypsy women and among others, where smoking has long been customary, a toleration to the poison has been established with the result that its injurious action upon the uterus no longer follows.

Here is an argument against cigarette smoking, especially by girls and young women, that has an important socioeconomic bearing. The cigarette smoking which young women have adopted in recent years, partly from bravado, partly through some desire to be real devilish, seemed innocent enough to the pipe- or cigar-smoking male when done just in company, and said male often smiled rather amusedly and indulgently at the cutting up of "the girls". However, it seems as though habits like smoking, drinking, and so forth, obtain even a more vicious hold upon the female of the species once they have been fully adopted, and, further, it is true that the more delicate organism of young women can not bear up against injurious influences as well as the tougher constitution of the lords of creation.

If it is true that the excessive use of cigarettes produces sterility in young women, this habit becomes a very serious one. The only solution is, to combat cigarette smoking absolutely in all young women, no matter whether they are single or married.

WHAT ARE VITAMINES?

The vitamines share, with a few other therapeutic agents that are at present in the lime light, a claim to general interest. Owing to the frequency with which these substances are mentioned in popular literature, it is necessary for physicians to be familiar with them. A recent communication from the U. S. Department of Agriculture contains a very simple description and elucidation of vitamines, and we reproduce it here for the benefit of our readers since the subject is dealt with in such a simple form that physicians can use the information readily for instructing their patients.

That vitamines are compounds absolutely essential in the food, in order to maintain the weight of the body and produce growth, has been definitely proved. The lack of vitamines causes deficiency diseases, so named because they are due to the lack of something in the diet. Vitamines are present and are needed in such small quantities in the food that chemists have not yet been able to isolate them from the many other compounds which are in foods. For this reason, we know very little of the actual character of vitamines.

Three Types of Vitamines.—According to a statement by Dr. Carl O. Johns, in charge of nutrition work in the Bureau of Chemistry, U. S. Department of Agriculture, vitamines have been classified into three different types depending upon the functions which they have in promoting well-being and growth.

The first type is known as *water-soluble vitamines,* and these are necessary in order to obtain growth-material from food.

Lack of these causes beri-beri, which manifests itself by disease of the nervous system and by other symptoms. These vitamines are found in seeds, in green plants, in certain bulbs and fleshy roots and fruits, and in milk and eggs, as well as in certain organs in the animal body. The seeds referred to include beans, nuts and the various cereal grains. When cereals are very highly milled in order to obtain a very fine white flour, a large part of the vitamines may be removed. Vitamines are also lost when rice is polished in order to remove the outer layers which contain most of the vitamines. It is for this reason that a diet consisting mainly of polished rice may cause beri-beri, while unpolished rice does not cause this disease.

Fat-Soluble Vitamines.—The second type is known as fat-soluble vitamines, and these are found in butter, eggs, milk, and in certain animal organs such as the heart, kidneys, and liver, also to some extent in other fats as well as in green vegetables. They further exist in smaller quantities in certain seeds. When fat-soluble vitamines are absent from the diet, animals and man are subject to disease of the eyes, which appears to be related to xerophthalmia and which, if prolonged, may produce blindness.

The third type is known as *antiscorbutic vitamines*—that is, those which prevent scurvy, and the lack of which manifests itself by disease of the bones as well as in other ways. These vitamines are found in oranges, grapefruit, lemons and other citrous fruit, and in green vegetables such as tomatoes, spinach and lettuce, and in eggs and raw milk. The drying of vegetables frequently destroys the activity of the antiscorbutic vitamines. It is said, though, that dehydration preserves them. The best source of vitamines is in the leafy parts of vegetables, and this is one of the reasons why spinach, lettuce, and cabbage are valuable foods.

Professor Huxley relates that he was once talking with an eminent fashionable physician about the Vis medicatrix naturae, when the latter replied: "Stuff! Nine times out of ten Nature does not want to cure the man; she wants to put him in his coffin."—Dutton, "Venesection".

WHO IS TO BLAME?

In this day, especially in the cities, where conditions do not favor family life and propagation as in olden times, sterility is more often considered a blessing than a woe. But, many times, among those more favorable positioned, in whom either the maternal of paternal longing, or both, are normally awake and clamoring, sterility on the part of the woman is nothing short of a calamity. When it is, the task is assigned to the family physician to determine who is to blame.

In such contingencies, it is easy, partly from habit, to suspect first of all the woman as harboring defects which make for barrenness and straightway to subject her to dilatation of the cervix, to the wearing of pessaries, to curettage and other more or less onerous if not indeed painful interventions. This is not fair. Why not be a bit chivalrous in this matter and, at the same time, sensible, and investigate the male first; he will take it as an affront, no doubt, but even so, to determine whether the sterility is or is not on his side is easier to do, and inflicts little or no real physical suffering on him.

Such a course is highly justified, we think, in view of the observations of Richet and others that one male in ten is azoospermic. Some believe this condition to be biological and universal. Others deny it and attribute male sterility to gonorrheal epididymitis. No matter, the condition exists and probably to the extent here mentioned.

But, the male is also indirectly responsible when, as a carrier of the gonococcus, he infects his wife during copulation and sets up in her a condition of tubal sterility. This happens in about 60 percent of the cases, it is estimated; which should cause both husband and doctor to be a little more charitable than they usually are in these matters. Instances are by no means rare of an inconsiderate husband making his spouse thoroughly miserable and even casting her off, for bearing him no children, when in fact he himself was the author of her plight.

The figures of Richet make the disease, gonorrhea, responsible for two-thirds of the sterile unions extant; this, however, may be considered too high by some. If fairly accurate, they may well lead to the inference that the post-war decline in birth-rates, at present noticeable in certain European countries, is very largely due to a greater temporary prevalence of gonorrhea.

Leading Articles

Treatment of Wounds by Modern Antiseptics*

By JOSEPH C. SCAL, M. D., New York City

THE application of the modern antiseptics, Dakin's solution, dichloramine-T, flavine, the bipp mixture, and the ambrine treatment for burns, has not yet received proper attention from the medical fraternity. These remedies are especially valuable in industrial centers where a host of workers are constantly being injured and where the prompt application of such antiseptic treatment will get them well and return them to work in far shorter time than under former conditions. The modern antiseptics are at our disposal only as the result of the findings of surgeons who, through war experience, learned the importance of fighting wound infection as soon as possible after the wound had been sustained. thereby shortening the length of disability of wounded soldiers. Practically all war wounds were infected, for, by the time the patient reached the surgeon, the wound was hours or even days old. It was only at the beginning of the war that the importance of fighting wound infection impelled the Rockefeller Institute to employ Carrel as the surgeon, and Dakin as the chemist, and to them should be given the credit for producing the agents by which we are able to successfully combat infected wounds. These men endeavored to find an antiseptic which would rapidly and successfully destroy microorganisms in a wound and at the same time would be harmless to new tissue. The result was, Dakin's solution and dichloramine-T. About the same time, flavine, bipp, and the ambrine treatment for burns appeared, each with its respective merits. With the immediate and prompt application of these modern antiseptics, infection can be eliminated, prevented, or controlled, in severe wounds with existing contamination.

Dakin's Solution

Dakin's solution, when applied according to the Carrel-Dakin method, is the most valuable agent for the treatment of deep and extensive wound infections. It prevents impending infection and makes possible secondary sutures for previously infected wounds, and primary sutures in favorable cases.

Previous to the use of this method, every war wound was drained. Carrel eliminated this and instead filled the wound with antiseptic fluid, constantly renewing it so that it did not lose its germicidal potency.

The solution consists of not less than 0.4 percent nor more than 0.5 percent of sodium hypochlorite, which is not alkaline to powdered phenolphthalein but is alkaline to an alcoholic solution of phenolphthalein. This solution can be prepared easily by using 10 Grams of dry sodium carbonate to the litre of water through which about 1600 Cc. of chlorine gas is allowed to run. Then syphon off the clear fluid and add boric acid to clear the filtrate. Daufresne's modification of Dakin's solution is prepared in the same way except that it is neutralized with sodium bicarbonate instead of with boric acid. The solution, however, must not contain more than 0.45 to 0.5 percent of sodium hypochlorite to avoid irritation of the tissues.

Method of Application

After shaving the area about the wound, wash with a neutral soap and remove every

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foreign material as well as any detached skin and necrotic tissue which may be present. Then place the Carrel tubes deep enough to reach the most dependent part of the wound in such a manner as to permit irrigation. Smear the wound edges with yellow petrolatum to prevent irritation of the skin and cover the wound with absorbent gauze.

The tubes are then connected with a reservoir containing the solution, the flow of which is controlled by a simple clamp. The wound is irrigated every two hours, while the dressing is removed once daily. The infected wounds are rendered sterile in from six to eight days at which time secondary suture may be attempted.

The advantages of the solution are, that it acts with exceeding rapidity (being many times stronger than carbolic acid) and yet does not irritate the skin when it is used in its proper percentage. It is only slightly toxic and can be applied freely to any part of the body. It also causes a very rapid dissolution and separation of necrotic tissue. The only disadvantage is, that the solution is very unstable and decomposes quickly in light, rapidly losing its germicidal power. It should be freshly prepared and kept in dark-brown or amber bottles.

In wounds of shallow dimensions, the solution is applied directly by means of a wet gauze dressing. When the wound is sutured and such dressing applied, it is interesting to note the absence of any reaction around the wound, there being no pain, redness or swelling present. In compound fractures, the use of this solution keeps the wound from suppurating so that in most cases not even a drop of pus may be found on the dressing.

Dichloramine-T

This remedy was introduced by Dr. H. D. Dakin. It is one of the most powerful antiseptics known, being the most rapid in action and fifty times as powerful as carbolic acid. It is nontoxic, nonirritating and easily applied. It consists of aromatic chloramine derived from toluene, containing 29.5 percent of chlorine. Chemically it is toluneparasulphonedichloramine. It is marketed in the form of a yellowish white crystalline powder with the pungent odor of chlorine. It is insoluble in water, but soluble in certain oils such as eucalyptol, carbon tetrachloride, and chloroform. Dichloramine-T will not keep in these oils unless they are heavily charged with chlorine. Dakin has prepared an oil, called chlorcosan, which is a liquid paraffin wax, heavily chlorinated by passing a stream of chlorine through it. In this, the antiseptic will keep six to eight weeks, at least, in dark-amber bottles away from light, heat and moisture.

The antiseptic is easily prepared by rubbing the proper quantity of dichloramine-T to a paste with a small quantity of warm chlorcosan and then adding the proper volume of the oil which has been previously warmed to about 140°, mixing thoroughly. If the solution is not clear, filter. A 5-percent solution is best for general use.

The advantages in the use of dichloramine-T are, its prolonged action on a wound and its thoroughness in destroying microorganisms, the chlorinated oil giving up the chlorine antiseptic slowly but surely so that its action is continuous for about twenty-four hours. This action is in contradistinction to most aqueous antiseptics which are immediately diluted by the serum and wound secretions, becoming inert and powerless almost immediately after application. The use of dichloramine-T is also economical, as large amounts of solution and large dressings are unnecessary. The short time it takes to dress the wound is a great saving for the doctor, as the dressing seldom sticks to the wound. The other advantages lie in the rapidity of action, the decrease and prevention of secondary infection, and the possibility of previously-infected wounds being sutured long before it would have been possible with the ordinary antiseptics.

Method of Application

Remove all foreign matter as well as devitalized necrotic and loose tissue from the wound. Wash the wound with a neutral soap and dry it thoroughly by fanning, with a therapeutic lamp, or the application of ether. Always keep in mind the fact that alcohol, iodine, bichloride, or other aqueous solutions in the form of wet dressings must not come in contact with the wound as they decompose the dichloramine-T and form hydrochloric acid which is irritating to the wound. A piece of specially prepared, waxed mesh gauze should be placed over the wound to prevent the dressing from sticking. The dichloramine-T is applied over the gauze with a medicine dropper, a swab, a pipette, or an

all glass atomizer which sprays the liquid evenly, deep into the wound. This last method is greatly to be preferred as it is absolutely painless. If the solution is too thick for spraying from an atomizer, add 10 percent, in volume, of carbon tetrachloride just before the oil is sprayed. Old and decomposed solutions are irritating and must be avoided.

It is interesting to note the experiments of Doctor Dunham with this agent, in which he determines that dichloramine-T (2-percent solution) will destroy in half a minute the number of microorganisms that it would take bichloride three hours, carbolic acid twenty-four hours, and Dakin's 5-percent solution four minutes. He does this by determining the total number of microorganisms in a culture medium of blood serum and muscle extract inoculated with staphylococcus aureus, to which the antiseptic is added, and the length of time that is required to destroy the organisms noted.

This antiseptic has been widely used and tested by Dr. Harry M. Archer, of New York, and Dr. W. E. Lee, of Pennsylvania, who report wonderful results, as well as safety and ease in its application.

The Flavine Antiseptics

Proflavine and acriflavine are dyes only recently introduced as antiseptics and are very powerful agents, their germicidal action being increased by the presence of serum and wound secretions, in contradistinction to dichloramine-T, which acts best on dry surfaces. They are supposed to be much more powerful than dichloramine-T, and can be used in aqueous solutions of 1:1000 or 1:3000 thereby making their use very economical.

Proflavine, which is chemically diaminoacridine sulphate or chloride, is weaker and less toxic than acriflavine, which is chemically diaminomethylacridinium chloride. Proflavine is the preliminary product in the manufacture of acriflavine. They show equal results, however, in the treatment of infected wounds, except that proflavine has, to some degree, a selective hemostatic action.

The preparation of the solution is simple, a 1:1000 strength being obtained by adding a given amount of the powder to the proper quantity of normal saline, the solution being facilitated by heating; it is filtered when cool. Boiling does not decompose the solution. A very dark amber fluid results.

For ordinary use in wounds, a 1:1000 solution is required. Its advantages are, absence of pain on application and its power of selective destructiveness to microorganisms, while it does no harm to the tissues or other protective agents of the body. It can be applied directly to the wound as a wet dressing and it is so harmless to tissues that several ounces of the antiseptic in a 1:1000 strength can be injected into the muscles or tissue without local or general effect. In spreading infections and inflammations, where incisions are not advisable, a good result can be obtained by injecting this fluid into the affected areas, especially around the edges. Theoretically, it should exert some influence in erysipelas also; but, in such cases, I have had no experience.

The chief value of this agent, in my experience, is its prophylactic action in wounds severely contaminated. In about four hundred cases of wounds, many of which were badly contaminated, not one became infected where flavine was used to clean and dress the wound. A great number of these wounds were sutured. No surgeon should hesitate to suture a wound regardless of apparent contamination, providing all foreign material and necrotic tissue be removed and the wound thoroughly cleansed and dressed with flavine. Too-frequent dressings should be avoided, as the agent acts better when in contact with the wound serum and excretion, and exerts its influence over a longer period.

The Bipp Preparation

This is a very excellent remedy for sinuses and chronic bone-fistulæ. It consists of bismuth subnitrate, 1 part; iodoform, 2 parts; and petrolatum, 12 parts rubbed into a paste. It was originally prepared by Sir Almroth Wright and introduced by Rutherford Morison who found it of excellent value while other British surgeons abandoned it.

The method of application in sinuses and fistulæ is, to first explore the wound, remove the dead bone, open the sinus as much as possible. Then inject the mixture, which has been melted, into the sinus by means of a syringe, or pack it into the wound. The mixture is worthy of a trial, having been found to give satisfactory results in two cases which came to my attention, in which

the patients were cured after a two weeks' application of bipp.

In the treatment of wounds, this mixture has not yet been given a fair trial in this country. Morison, of England, affirms that infected wounds can be sterilized rapidly and spreading infection checked by a few applications of bipp. His method is, to cleanse the wound and surrounding area, remove all foreign and necrotic material, and then fill the cavity with bipp, rubbing the paste gently into the wound with dry sterile gauze, wiping off the excess but leaving a thin covering of the antiseptic on the wound. The wound is then dressed with sterile gauze kept in place by adhesive strips. If the patient is free from pain and constitutional symptoms, the dressing need not be changed for several days or weeks. If discharge comes through, change the dressing at once, first cleansing the wound with alcohol.

The danger in using this mixture lies in the possibility of bismuth or iodoform poisoning due to the absorption of these ingredients, and due caution should be observed in its use. It should also be noted that, bismuth being impervious to the x-ray, bipp should be used *after* x-rays have been taken where such are necessary.

Paraffin Treatment of Burns

This treatment was introduced during the war as an excellent remedy in selected burns, as well as extensive surface wounds; as it is a liquid wax dressing, it does not adhere to denuded surfaces. Its application is absolutely painless, affording immediate relief from pain; it promotes healing with the minimum amount of scarring. The removal of destroyed, devitalized, and necrotic tissue is facilitated and, with proper application, contractures and disfigurement are avoided.

Its application is simple. Irrigate the wound surface with either normal saline or proflavine and dry it by fanning or with a therapeutic lamp. Melt the wax preparation, apply it to the wound by brush, swab, or special metal atomizer (the last method is best) and cover it with several layers of sterile gauze. Then, spray the wax over the gauze so as to form a film. The part is then bandaged, and the dressing changed daily for the first few days, after which every second day will be sufficient. In dressing these burns, the blisters should not be interfered with at the first dressing, but dead layers of skin can be removed and the blebs punctured at the second dressing By this method is secured the formation of a protective nonadhesive dressing, relieving the pain and smarting of the burn quickly, and giving nature a chance to bring about healing.

Ambrine, which was named by Dr. Barthe de Sandfort, is the oil of amber mixed with paraffin wax, and is an improvement on the other paraffin preparations. This preparation was used extensively for burns at the front. It can be applied as hot as the patient can bear and forms a protective layer over the burned area. It does not adhere to the wound and the dressing can be removed without pain, bleeding, or pulling away of newly-formed layers of skin. In this way, healing is promoted and the new tissue and skin form rapidly with the absence of scars.

Fauntleroy and Hoagland ([1]) report cases in which continuous applications of paraffin resulted in a profuse discharge and the formation of granulated edges. In cases where the granulations are sluggish, scarlet red can be added to the paraffin wax so as to accelerate healing. Dr. J. R. Beiter ([2]) relates his experience with the paraffin treatment of burns in industrial cases and says that superficial burns healed rapidly but that deep burns behaved as in former times. Other equally experienced physicians have obtained excellent results even in deep burns.

In using these antiseptics, I have obtained almost equally good results with all, but lately I have been using flavine instead of dichloramine-T, with the result that, in about 400 cases, all the wounds healed by primary union while, with the use of dichloramine-T, in at least two cases in a hundred the wound would become infected despite its use. This I believe could be accounted for by the fact that the oily preparation of dichloramine-T is not able to penetrate to the most dependent part of a contaminated wound while the aqueous flavine solution finds easy access to it. Then again, in the use of dichloramine-T, in about 0.5 percent of cases, the skin would show irritation if prolonged use was necessary, while with flavine no wound yet has shown any skin irritation. In infected cases, I have come across several obstinate wounds where dichloramine-T had had no effect on the microorganisms and the use of

some other antiseptic became necessary eventually.

Case Reports

The following cases in which dichloramine-T and flavine were used will be of interest:

Case 1.—A. R., aged thirty-one, injured on March 4 by catching his right hand between a belt and pulley. He called at my office ten minutes after the accident. Examination showed a deep gaping wound stretching across the entire palm of the right hand, exposing tendons, muscles and bone. I cleansed the wound and removed the grime and grease by pouring ether from a can into the wound, then flooding it with dichloramine-T and suturing the tendon sheaths and fascia with No.-0 catgut and the skin with horsehair. No drainage was used. An x-ray taken the following day, by Dr. Leopold Weiss, showed a comminuted fracture of the proximal phalanx of the left index finger, as well as fracture of the third and fourth metacarpal bones. There was no infection, the wound healed by primary union, the horsehair skin sutures were removed on the seventh day and mechanical movement instituted at once. A wonderful result followed, movement of the fingers and hand being almost normal when the man was discharged.

Case 2.—C. B. W.; occupation, press-hand; injured July 29, by catching right ring finger in press. When he presented himself, fifteen minutes later, examination showed an amputation of almost the entire terminal phalanx of the right ring finger about one quarter of an inch away from the joint, severing bone and tissue, but still attached by a small strip of skin on its under surface. Circulation to the amputated part was poor. I removed the loose nail, adjusted the fractured ends of the bone in good apposition, placed two retention sutures of horsehair on either side of the finger, flooded the wound with flavine and dressed it without drainage. Circulation re-established itself, the sutures were removed on the seventh day, healing being completed, and the patient was discharged several days later as being able to return to work.

Case 3.—R. T., aged twenty-five; occupation, press feeder; cut right hand with knife of machine; arrived at office half an hour later. Examination showed an incised wound on dorsum of right hand, an inch and a half in length exposing the tendon sheath going to the middle finger. I flooded the wound with flavine, put one No. 0 catgut suture into the subcutaneous tissue covering the tendon, and sutured the skin with four horsehair sutures. Primary union resulted, the skin suture being removed on the fifth day. A slight swelling remained but subsided by the tenth day, at which time he was discharged ready to return to work.

Case 4.—C. L., aged thirty-six; occupation, carpenter; injured July 10, 1919, by stepping on a nail which penetrated through his shoe and into the front part of the sole of the right foot. Appeared at office six hours later with severe pain in the right foot, especially on the dorsum. Examination showed a punctured wound of the sole of the right foot, the probe showing penetration of almost three quarters of an inch. There was beginning swelling on the dorsum of the foot, behind the first and second toes. I incised the wound and squirted flavine into it with a hypodermic syringe to which a pipette was attached. Tetanus antitoxin was administered. This wound was kept open by a piece of gauze saturated with flavine between the incised parts and removed the next day. No infection resulted. The swelling on the dorsum disappeared on the third day, and the wound was healed on the seventh day.

Case 5.—L. I., aged nineteen; occupation, packer; injured July 30, 1919, the release handle of a baling machine striking his scalp; appeared twenty minutes later showing an extensive laceration over the right parietal region of the scalp, extending down to the periosteum. The scalp was shaved, the wound cleansed with ether, loose hair was picked out of the wound with forceps, and the wound flooded with dichloramine-T; six sutures were inserted through the entire thickness of the scalp without drainage. Primary union resulted, the sutures being removed on the sixth day. A fine, narrow scar was the only evidence of the deep laceration.

Conclusion

In conclusion, I would add that, with the more liberal use of the new and powerful antiseptics, by the medical profession, in the treatment of wounds, there will be far fewer cases of infection with far less scarring and fewer permanent injuries resulting. To workers, as well as to employers and in-

surance carriers, there will be a great saving in the lessening and, in many cases, the prevention of disability and permanent injuries with loss of use of members. In fact, at the present time many employers will not send their injured employees to physicians who do not use one form or another of the modern antiseptics.

References:

1. Fauntleroy and Hoagland: *Annals of Surgery*, June, 1919.
2. Beiter: Paraffin Treatment of Burns in Industry. *Journal A. M. A.*, June 16, 1917.

℞: Marriage

By WILLIAM J. ROBINSON, M. D., New York City

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"MARRIAGE" as an article of materia medica is not listed in any of the Pharmacopœias of the world; nor in any National Formulary; nor in any list of New and Non-Official Remedies. Nor has it been passed by any Council on Pharmacy and Chemistry. Yet, it is being prescribed frequently, recklessly, criminally. A highly beneficent remedy in some cases, it is apt to prove disastrous, even fatal, in cases in which it is not distinctly indicated or in which it is contraindicated. It differs from all other remedies, medicinal, physiologic, dietetic, climatic, etc., in this respect: It is a practically permanent remedy which you cannot discontinue or diminish at will. If you prescribe bromides or strychnine or phosphorus or yohimbin and find the drug ineffective or injurious, you can modify the doses or stop the remedy altogether. If a diet proves unsatisfactory, you can change it. If the patient is not doing well in the climate which you ordered for him, he can come back home or you can send him elsewhere. But, you can not tell a patient who got married on your advice to become unmarried, or to change his married partner, or even to get unmarried for a year or two. There is another person at stake. Even when a man is separated or divorced, *he is still married*: A marriage may be undone physiologically, it can very seldom be completely undone socially or psychologically —if you know what I mean.

Marriage Prescribed Recklessly

In short, marriage, *from every point of* is the most important step in a man's, man's, life. And, yet, I repeat, how how criminally thoughtlessly is by some members of our beloved profession! For what disease has it not been recommended as a sovereign remedy! And, with what tragic results!

From my personal knowledge, marriage has been prescribed for

1. Uncontrollable night emissions.
2. Uncontrollable masturbation.
3. Sexual neurasthenia.
4. Hypochondria.
5. Uncontrollable erethism.
6. Satyriasis.
7. And, worst of all, impotence!

I will state right here that, in everyone of the above-mentioned conditions, marriage *may* prove beneficial or curative. If marriage had *never* proved of benefit in any one of the maladies mentioned it would probably not be prescribed by any physician at the present time. The trouble is that it does help now and then; but, one must know the stage and the variety! It is here, in the amount of common sense, in the ability to determine the stage and the variety of the disorder, that the difference between the competent physician and the bungler comes to the surface.

Let us analyze the subject a little more in detail.

When Marriage May, or May Not Be Prescribed

If a man suffering with frequent night emissions is otherwise in good sexual health; if his emissions are accompanied with strong erections and the normal libidinous sensation, and if they are not followed by great languidness and mental depression, then the advice of marriage may be perfectly legitimate; for, it may result in a prompt and complete cure. But, suppose the man's emissions have reached the atonic stage, suppose his nightly emissions are not

accompanied by any sensations or erection or only by a very feeble one; suppose he has reached the stage where he is even unaware that he has emissions, the seminal stain in the morning being the only sign of what has occurred at night—in such cases to advise marriage is nothing short of criminal. Not only may the man be unable to perform the sexual act satisfactorily, but he may not even be relieved of his emissions. For, it is a great mistake to believe that normal sexual relations are an infallible cure for night emissions. They may even become aggravated. We know of many such cases. Many men suffering with night emissions, who were advised to marry or otherwise to indulge in sexual relations, found the frequency of their emissions increased. The condition must first be *cured* or *improved;* only then may normal sexual relations be advised. And we must bear in mind that the mere frequency of the emissions is of less importance than their character; that is, the presence or absence of erection, the presence or absence of libidinous sensation and the resulting after-effects, namely, a sensation of well-being or one of weakness and depression.

What I stated in reference to night-emissions applies with equal force to masturbation; no more-erroneous idea exists than the one that prevails among the generality of the profession, that normal sexual relations are a cure for every case of masturbation. Here we must also consider the *character* of the masturbation habit. In the great majority of cases of what for want of a better term we would call normal masturbation, marriage does act as a quick cure. In other cases, marriage is of no avail or even aggravates the condition. There is a vast number of married men—and women—who continue their masturbatory activity in an undiminished or even increased degree.

How many cases of sexual neurasthenia or hypochondria have been aggravated—aggravated terribly, aggravated to the point of suicide—the patients having taken the prescription "marriage" on the advice of some physician or friendly layman!

The greatest crime or, let us say, the greatest piece of stupidity that the "faculty" have ever been guilty of is, the prescription of marriage as a cure for impotence. A young man feels that there is something wrong with him; he is suffering from emissions or had suffered thus and now they stopped; he feels "weak"; he has attempted relations several times under different circumstances and failed each and every time; his libido is either normal or greatly diminished; he seems to have no desire at all; also his erections are feeble or he has none at all. The doctor laughs, tells him that it is nothing at all, that everything will be all right as soon as he gets married. If the young man happens to possess common sense and a fair dose of scepticism, he hesitates to follow the doctor's advice and seeks further counsel. But, if he is one of the naive believers and takes the doctor's prescription, there is the devil to pay. Instead of one dissatisfied individual there are two unhappy ones—one male and one female. And, the thing cannot be undone.

Marriage is an excellent remedy in "indicated" cases. However, it should be kept under lock and key among the dangerous poisons and should be prescribed with extreme care and circumspection.

THERE is an unwritten law for people who are thoroughbred—the real gentleman and the real lady—which compels them to keep their troubles, their ailments, their sorrows, their worries, their losses, to themselves. There is a fine discipline in it. It mellows the character and sweetens the life. But when these things are not borne heroically they mar the character and leave their ugly traces in the face; their hideous forms appear in the manner as well and disfigure the whole life.

Orison Swett Marden.

Intravenous Medication With Iron and Arsenic

Observations and Clinical Data in Over 500 Cases

By A. H. WERNER, M. D., New York City

ALTHOUGH iron and arsenic have been used for a number of years intravenously, for the treatment of various pathological conditions, I doubt whether the great therapeutic value of these two drugs has been fully and generally recognized. A few authors, who have expressed their opinion and published it in various medical journals, are naturally very enthusiastic about this modern form of medication. The number of these few authors in comparison to the great total of physicians is so infinitesimal that I feel it a duty to publish my own observations for the benefit of the medical profession and of suffering humanity at large.

Indications for Iron and Arsenic

In the first instance, let us consider in which cases iron and arsenic are indicated: Their number is legion! Besides the anemias, all cases of convalescence should be treated with iron and arsenic by the intravenous method.

The pharmacological and physiological action of iron and arsenic is so well understood that I do not think it necessary to enlarge upon it here. It is sufficient to say that the introduction of iron and arsenic directly into the blood stream enriches the blood in its iron content, increasing thereby the hemoglobin, at times, as in my own experience, by over 60 percent. We can not fail to obtain a better oxygenation and oxidation of the whole system and, in consequence, increased metabolism which shows itself in the general improvement of the patient and in a rapid increase in bodily weight. In all postoperative cases, especially when there has been a considerable loss of blood, the intravenous administration of iron and arsenic is a therapeutic measure that should not be neglected. As a matter of fact, I am going so far as to say that the physician or surgeon who neglects administering a course of iron and arsenic medication after an operation, does not act in the best interest of his patient. Nothing can shorten the time of convalescence to such an extent as the intravenous introduction of iron and arsenic. This equally applies in cases of convalescence from acute and chronic diseases.

Some Case Reports

In the following, I shall cite a number of cases that are of special interest:

Case 1.—Mrs. C. L. K. Age 57; married and the mother of three living children. During the last ten years, has been suffering from rheumatism and gout. Two years ago, both hands began to show signs of deformity. The patient was unable to close her hands and the pain became excruciating. Unable to sleep. Lungs normal; heart sounds normal excepting a faint mitral murmur; hyertrophy. Blood pressure, systolic 170 mm Hg., diastolic 104 mm Hg. Pulse regular at 76. The patient had lost a great deal of weight, being now 130 pounds; her height is 5 feet 10 inches.

The patient was given radium emanation treatment 20000 M. U. per diem. After six months' treatment, the hands were perfectly normal, the patient being able to close them without any difficulty and without pain. She sleeps well and her appetite is good.

In September, 1920, this patient came to me suffering from insomnia, anemia and general debility; she was highly nervous. The hemoglobin scale according to Talqvist showed 60 percent.

A course of iron and arsenic intravenously was advised.

A change for the better was reported right after the first injection. The patient was able to sleep the whole night, the nervous insomnia disappeared, the appetite improved greatly, and the patient increased in weight, 11 pounds after six injections. Now, after four weeks' treatment, she feels well and is able to do all her housework,

taking full charge of her 5-room apartment. The hemoglobin is 90 percent.

Case 2.—Mr. W. C. K. Accountant. Age, 47; height, 6 feet 2 inches; weight, 186 pounds. Single. Always enjoyed good health and is a man of regular and moral habits. Four years ago, he fell on the ice, spraining his right ankle and suffering a fracture of one of the metatarsal bones. He was treated in a hospital and privately, by massage and other methods. After two months, he was well able to resume his duties.

Three months later, the foot became swollen and painful, the patient being unable to walk without the use of two stout canes. He consulted his physician and was treated with hydrotherapeutic compresses, massage and electrotherapy. No improvement followed.

During the last three years, a number of physicians, osteopaths, and even a chiropractor were consulted, but, the condition of the foot grew worse.

This patient consulted me early in April 1920. He was walking with the aid of two crutches. The right foot and leg were greatly swollen (edema), discolored and the limb and foot felt cold and clammy. Aside from a badly-infected throat and tonsils, nothing abnormal could be detected. A smear of culture from the throat revealed the presence of streptococcus viridans and staphylococcus pyogenes aureus. Fluoroscopic examination of the foot gave a negative result.

Treatment: The throat was sprayed with a powder of a 10-percent suspension of diodoparaphenolsulphonate in sugar of milk. In addition, intravenous injections of sodium iodide and of iron and arsenic were made alternately twice a week.

There was a rapid improvement in the condition of the throat, but the improvement in walking was very slow. After three months of treatment, the patient still used two canes to enable him to walk. It was realized that there was a marked psychological factor which prevented the patient from making use of his foot. The edema had completely disappeared and no cause could be found why the limb could not be used normally.

We started walking exercises, taking away his canes, supporting him when walking. By degrees, the support given was less and less and the patient was able to walk alone though he was limping badly. The intravenous medication was continued all this time. After four weeks, the patient was able to discard his canes and is now walking normally, although he reports that there is still a slight weakness in the foot.

In this case, there was no doubt a streptococcus infection through absorption from the pharynx, by way of the lymphatics. The injury of the foot, caused by the first accident, had created a very favorable spot in the weakened tissues.

The recovery in this instance must be attributed to the bactericidal action of the sodium iodide, the tonic effect of the iron, the increased leucocytosis and phagocytosis of the polymorphonuclear neutrophile cells due to the arsenical medication. Although the psychotherapy as a curative agent must not be overlooked, it is clear that, without the iron and arsenic administered intravenously, this splendid result could not have been obtained.

Case 3.—Miss M. J. R. Age 24. Spinster. Height, 5 feet 2 inches; weight, 99 pounds. Actress. Has been in ill health during the last six years, but in the last two years she had become rapidly worse, so as to be compelled to give up her career on the stage. Had been unable to do any work at all during the last 18 months. This patient has been under medical care for four years; still, her condition failed to improve.

On March 4, 1920, this patient came to me and, on examination, was found to be suffering from Addison's disease. The patient was highly anemic, hemoglobin, 40 percent. Her general condition very feeble. The red-cell count was 1,300,000. A blood smear, treated with Wright's stain, revealed nucleated red cells, microcytes and macrocytes. The pulse was rapid but faint. There was palpitation of the heart; dyspnea. The spleen was enlarged. Lying on the left side was impossible due to great pain; palpation of the spleen caused considerable distress. The temperature was subnormal; 94° Fahrenheit.

Typical pigmentation was present all over the body, as also on the mucous membrane of the mouth.

Treatment: Iron and arsenic, one injection every three days alternating with sodium iodide; roborating diet and complete rest in bed was advised. During the

first two months of treatment, very little progress was made towards a recovery. However, after this period, the patient began to improve; at first her gain was only slow. Still, at the end of the third month, a material improvement had taken place. The patient was able to remain out of bed a whole day, taking short walks in the open and her general condition was greatly improved. At this period, the pigmentation on the skin and in the mouth began to fade. The blood picture had greatly improved, the nucleated red blood cells had disappeared and the red-cell count was 3,600,000. The hemoglobin had risen to 70 per cent. The weight had increased to 106 pounds.

At the time of writing, the patient has fully recovered and has again taken up her profession, playing now in a New York theatre. Her weight is 113 pounds; the hemoglobin is 80 percent. She is full of energy and may be considered as again enjoying the possession of perfect health.

In Skin Affections

In about twenty cases of Acne-vulgaris and Furunculosis, in both male and female patients, and ranging from 16 to 30 years of age, treated with one dozen injections of iron and arsenic, given at intervals of from three to four days, the results were always highly gratifying. The improvement began after the first week and the results are far superior to those of vaccine therapy.

In a very large number of cases of chlorosis in young girls, the administration of 6 injections, intravenously, of iron and arsenic was sufficient to remedy the trouble.

In one case of erythema multiforme bullosum, in a young Hebrew, 18 years old, twelve injections of iron and arsenic, together with an appropriate local treatment, brought about a complete cure in four weeks. In a number of postoperative cases, such as ovariectomy, Porro's operations, appendectomy, liver abscess and so on, iron and arsenic was given at three-day intervals, with the result that the convalescence was considerably shortened and a better mental and physical condition prevailed.

Conclusions

The results which have been obtained, as described, by the intravenous administration of iron and arsenic, prove conclusively that the number of injections can be increased to 30 or even 40 without causing any reaction and, therefore, it seems that there is a complete assimilation of the iron and arsenic as it is contained in the ampoules that are offered to the medical profession. The point of greatest importance, however, is, that the digestive organs and the digestive powers are in no way interfered with. As a matter of fact, in all cases there was a noticeable and a considerable increase in the appetite. Even in the serious and chronic cases, the therapeutic effect of iron and arsenic cannot be disputed. I do not hesitate to recommend iron and arsenic for due consideration, being certain that the results will be highly satisfactory to all who make use of this modern therapy.

The Use of Some of the New Drugs

By REGINALD WEILER, M. D., New York City

IN the November, 1919, issue of "The American Journal of Clinical Medicine" Dr. J. W. McCready, of New York City, published a most interesting article on the internal use of chlorazene, the Abbott Laboratories' preparation of Doctor Henry D. Dakin's chlorine-carrying antiseptic. Since that time, two articles appeared in Clinical Medicine, one highly praising its internal use and written by Dr. Edward Atkin, of Ogden, Kansas. The second article was written by Dr. J. M. Watt of Bedford, Ohio, in which he describes some untoward results obtained by the ingestion of chlorazene. The Editor of The Journal, in a very able and masterly discussion, proved, at least to my satisfaction, that the unlooked-for results were due, not directly to chlorazene but to the oxidizing property of the chlorine liberated on some food which

had not, at this time, been completely and fully digested.

In the March, 1920, issue, (p. 189) of the same journal, I contributed a paper on my personal experiences with the use of chlorazene as an intestinal antiseptic. Since that time, I have had occasion to use this same drug in a number of cases of intestinal disorders. I am taking the liberty of reporting upon this use and the results obtained by the internal employment of the remedy.

It seems to me that it would not be untimely to give some reports on the use of benzyl benzoate, together with the chlorazene reports. Both can claim the distinction of being new drugs, and the use of both is still in the tentative stage. I have used the last-named remedy in a number of different diseases as the case reports will show.

Benzyl benzoate seems to possess all the properties that are claimed for it. It relaxes the unstriped muscular fibres without exerting any marked influence on the striated muscles. I have never noticed the slightest effect on the cardiac muscle from its use. In Case 6, I used it on a patient suffering from acute myocarditis without the ester exerting any influence, bad or good, on the cardiac affection.

Before giving any case reports, I wish to acknowledge my indebtedness to the following for their assistance in experimenting and filling prescriptions and for their kind and excellent advice always offered in the friendliest manner:—

Louis Klein, Ph. G., Joseph Shapiro, Ph. G. Doctor Edward A. Franklin, all of New York, and The Abbott Laboratories of Chicago and New York.

Case Reports

Case 3.—Mrs. E. B. age 28—Diagnosis: Acute Gastritis. History: Negative. Symptoms: Temperature, 102°F. Pulse 108, regular. Blood pressure, 120 mm. Pain, general abdominal, most severe in epigastric region, nausea, great thirst, tongue coated.

Treatment: Syrup of ipecac, 4 drams; then, magnesium sulphate, 4 drams. Hot-water bag to abdomen.

℞ Chlorazene (Abbott) ..... ½ gr.
Charcoal ..... 2 grs.
Bismuth Subnitrate ..... 2½ grs.

Fit in capsule. Dispense 12 such capsules.

Sig.—One capsule every three hours.

Enforced rest. Lemonade and light diet.

Result: Complete recovery in twenty-four hours.

Case 18.—Mrs. A. D. age 42—Diagnosis: Febris gastrica.

History: Negative. Symptoms: Severe prolonged chills varying in duration from 15 to 30 minutes. Temperature rose rapidly in 12 hours from 101 to 104°F. Headache, highly-colored urine with high indican index, coated tongue, vomited all food, nausea, foul breath; herpes appeared in twenty-four hours over the face, particularly around the mouth; moist rales all over lungs.

Tretatment; Ordered milk diet; alcohol sponges; calomel, 2 grains in divided doses and followed by magnesium sulphate. Gave "dosimetric trinity" every half hour till the fever fell to 102.5°F. Next day, after evacuation of the bowels was completed, I ordered:

℞ Chlorazene (Abbott) ..... ¾ grs.
Bismuth Subnitrate ..... 2 grs.
Sodium Sulphocarbolate ..... 3 grs.

Fit in capsule. Dispense 12 such capsules.

Sig.—One capsule every three hours.

Result: In three days, the temperature was normal and I was able to dismiss the case.

Case 10.—Mrs. B. Age 40. Diagnosis: Chronic enteritis.

History: Repeated attacks of subacute gastritis, heart burn, constipation, flatulence. Symptoms: Constipation for several days previous to my being called; every few hours, attacks of colic lasting from ten minutes to half an hour. General diffuse pain throughout the abdomen, flatulence, abdomen greatly swollen, borborygmus, tenderness over the bowels. On giving a continuous rectal enema, the rejected water was full of mucous threads intimately mixed with the feces. There was no blood, no bile, no pus. Appetite was fair; slight pallor; extremities cold; pulse 65 to 70. Temperature 100 to 101°F.

Treatment: Enemas of 1-percent chlorazene solution, twice daily. Very light diet, Flannel band to be worn over the abdomen. Calomel, 1 grain, every three nights followed by 2 drams of magnesium sulphate in the morning.

℞ Chlorazene (Abbott) ..... ¼ gr.
Charcoal ..... 3 grs.

Fit in capsule. Dispense 24 such capsules.

Sig.—One capsule every six hours.

℞ Menthol ..... 1 gr.
Strychnine Sulphate .....1/100 gr.
Extract of Belladonna..... 1/6 gr.
M et fiat pil. Dispense 50 such pills.
Sig.—One pill after eating.

Result: Steady improvement was manifested and, after twelve days of this treatment, I could stop all drugs but the following:

℞ Senna powder ..... 1 oz.
Sulphur lotion
Iron Subcarbonate.....āā 2 drs.
Potassium Bitartrate .....1 dr.
Honey .....q. s.
M. et fiat Confectio.
Sig.—One teaspoonful after eating.

Complete recovery.

Case 34.—Mr. I. J. age 60. Diagnosis: Gastralgia.

History: Neurasthenic disposition, sedative, herpes zoster.

Symptoms: Called at night to patient who had severe pain in abdomen. He had had several other similar spasms all day but they grew worse and more frequent at night. They lasted from a few minutes to an hour. The worst pain was in the epigastric region but it radiated over the whole abdomen. Food neither eased nor aggravated the pain. Hyperesthesia over the entire abdomen. Vomited any solid food taken. Hiccough, headache, polyuria, small, rapid pulse; temperature, 99.6°F. Later mild collapse.

Treatment: Hypodermic of morphine sulphate, ⅛ grain with strychnine sulphate, 1/30 grain. Hot water bag to abdomen.

℞ Cannabis Indica .....1/4 gr.
Strychnine Sulphate.....1/40 gr.
Aconitine Hydrobromate..1/200 gr.
Zinc Phosphide .....1/10 gr.
Sodium Arsenite .....1/40 gr.
M. et fiat pil. Dispense 50 such pills.
Sig.—One pill after eating.

℞ Chlorazene (Abbott) .....½ gr.
Sodium Sulphocarbolate..... 5 grs.
M. fiat Cap. Dispense 24 such capsules.
Sig.—One every six hours.

Result: The patient never had a recurrence to date. That attack lasted twenty-four hours.

Case 94.—Mrs. S. K. age 28. Diagnosis: Acute gastritis.

History: Had had an acute attack 3 years before, and then she was in the hospital for five days. Has had subacute attacks every few days. Afterward, suffered from terrible dysmenorrhea and menorrhagia; frequent attacks of migraine. Constipated. Frequently indulged in Chinese dishes and other rich foods. Sedentary occupation, domestic worries.

Symptoms: I was called to a moving-picture theater in a hurry, where I found the patient doubled over with pain in the abdomen. I had her rushed over to my office, in a taxicab, where I injected several quarts of chlorazene solution into the bowels. The returning fluid brought away a large quantity of foul-smelling, hard feces. I gave a hypodermic of morphine sulphate, ¼ grain with strychnine sulphate, 1/30 grain. I wanted to practice lavage but the patient refused to allow me to do so.

I then gave her two compound cathartic pills with orders to take ½ ounce of epsom salt in the morning. I then advised her to go home and rest in bed, and told her that I would visit her that evening. Instead of following my advice, she returned to the moving picture theater where she was employed. About three hours later, I received another hurry call and, on arriving, found my patient in a semiconscious condition on a couch in the office of the theater.

I immediately ordered her undressed and applied blankets around her. Her temperature was 104.5°F. The pulse very rapid and weak. Abdomen enormously distended. Conjunctivæ injected. Respiration rapid and shallow. Tongue thickly coated with white fur; mouth dry; great thirst was complained of in lucid moments. There was regurgitation but no vomiting. She had been doubled up with pain before I arrived. She had also complained of vertigo and headache.

Treatment: I injected ¼ grain of morphine with 1/100 grain of atropine. Before I had time to withdraw my needle she commenced to have a convulsion. The convulsion was of the tonic type at the height of which the patient rested on her heels and head. I gave chloroform as an anesthetic. When the convulsion had ceased, I gave her ½ ounce of syrup of ipecac, which exercised absolutely no effect. In the meantime, I had sent for Dr. B. S. Bookstaver, of 140 West 104th Street. Before he arrived, the woman had three more convulsions and I again injected ¼ grain of morphine, this time with 1/60 grain of coniine. However, as before, I was ob-

liged to anesthetize her in order to control the convulsion.

Doctor Bookstaver recommended a hypodermic of apomorphine hydrochloride, 1/10 grain, which I administered. The patient directly afterward vomited up a quantity of pale yellow, bitter substance. On later examination, it was found to contain no free hydrochloric acid, but fatty, butyric, and lactic acids and much mucus.

Soon after, the patient again had a convulsion which I controlled with chloroform. As it was 9 p. m., and my patient was still in a semicomatose condition and as I saw that there was little chance of our being able to move her home that night, I had her sent to St. Luke's Hospital, on 113th Street and Amsterdam Avenue.

Here, gastric lavage was practiced. On the third day, she was sent home. I then prescribed the following:

Chlorazene (Abbott).....¾ grs.
Bismuth Subnitrate..... 3 grs.
Charcoal ..... 2 grs.
Zinc Sulphocarbolate ..... 5 grs.

M. et fiat Caps. Dispense 40 such capsules.

Sig.—One every three hours.

Antiautotox in ½-ounce doses every morning was also ordered. A soft diet was enjoined with absolute rest.

In two days, her temperature was normal; pulse normal; no indican in the urine. She was directed to see me twice a week for some time. The chlorazene internally was continued for sixteen days.

Result: That was five months ago and, up to the present, the patient has never had a moment's discomfort from her gastritis. She is only taking, at present, the following:

℞ Powdered Senna .....1 oz.
Washed Sulphur
Iron Subcarbonate.....āā 1 dr.
Potassium bitartrate.....2 drs.

M. et sig.—Teaspoonful 3 times a day, after meals.

The only excuse I have for reporting this particular case at such length is that, as every practitioner knows, the mortality in just such a case as this is very very high.

Case 91.—Mrs. A. M. Age 28. Diagnosis: Acute gastritis.

History: A party. Symptoms: Classical symptoms of acute indigestion. Fever, 101.5°F., with some signs of collapse.

Treatment: Injected strychnine sulphate, 1/60 gram. Gave high rectal enema of 1-percent chlorazene solution. After a calomel purge, I prescribed:

℞ Chlorazene (Abbott) .....¼ grs.
Bismuth Subnitrate .....2 grs.
Sodium Bicarbonate.....3 grs.

Fit into capsule. Dispense 12 such capsules.

Sig.—One every three hours.

Result: Complete recovery in 48 hours. No attack since.

Case 105.—Miss I. M. Age 19. Diagnosis: Acute gastritis secondary to thermic fever.

Symptoms: All the symptoms of a severe gastritis remained after the young lady had recovered from a bad attack of thermic fever. All the classical symptoms were present, plus great weakness which I attribute to the thermic fever.

Treatment: Camphorated oil was injected every three hours; "Dosimetric Trinity" every half hour; alcohol sponges. When the fever went down to 102°F., I gave a high rectal enema of 2-percent chlorazene solution. Prescribed the following:—

℞ Chlorazene (Abbott) .....¾ grs.
Sodium Bicarbonate.....2 grs.
Sodium Phenolsulphonate.....5 grs.

Fit into capsule. Dispense 30 such capsules.

Sig.—One every three hours.

Of course, I purged the patient and ordered a liquid diet.

Result: Complete recovery in three days; no recurrences.

Case 52.—Mr. H. M. Age 22. Diagnosis: Acute gastritis.

Symptoms: Usual symptoms with clonic convulsions; after a spree, with dietetic excesses.

Treatment: Morphine and strychnine injection. I washed out the bowels with chlorazene solution, 1-percent, and prescribed:

℞ Chlorazene (Abbott) .....¾ gr.
Charcoal ..... 5 grs.

Fit into capsule. Dispense 12 such.

Sig.—One every three hours.

This, together with hot-water bags and purgation, secured complete recovery in twenty-four hours. No recurrence.

Case 54.—Miss L. N. Age 36. Diagnosis: Chronic gastritis.

Symptoms: Tongue coated and indented. Bitter and sour taste in mouth; foul odor from mouth; gastric pains at intervals; sense of pressure after taking food; no great tenderness; belching; heart burn;

nausea a constant symptom. These attacks have been annoying for years.

Treatment: Diet and:

℞ Chlorazene (Abbott) .....¾ gr.
Charcoal ..... 5 grs.
Sodium Bicarbonate.....5 grs.
Fit into capsule and dispense 50 such.
Sig.—One capsule 2 hours after meals.

Result: At the end of seventeen days a complete cure with no recurrence.

Case 98.—Mr. J. S. Age 32. Diagnosis: Acute gastritis.

Symptoms; Usual symptoms; constant vomiting.

Treatment: Calomel in divided doses and:

℞ Chlorazene (Abbott) .....½ gr.
Sodium Bicarbonate..... 2 grs.
Sodium Sulphocarbolate..... 3 grs.
Fit into capsule and dispense 12 such.
Sig.—One every three hours.

Benzyl Benzoate

Case 93.—Mrs. A. B. Age 31.

History: Married for the second time. One child, eleven years old; two miscarriages; labor, five days' duration, very painful; has "fishhook stomach". Eleven years ago, Doctor Shoemaker of Philadelphia performed a plastic operation for a laceration extending from the inner os to the cervix uteri and completely to the rectum. No hysterectomy. A portion of the descending colon was removed at same time. Patient made a good recovery. She is, however, still afflicted with a very neurasthenic disposition.

Symptoms: For 5 days in each twenty-eight, Mrs. B is afflicted with the most terrible pains radiating from the pubic region down each leg and to the back. She is at this time partially paralyzed on the right side. She perspires excessively at this time and is virtually unable to move. Her temperature rises and her pulse becomes weak and rapid, pupils contract, and so forth.

She menstruates through five days. The discharge is entirely normal, not excessive and containing but few clots. No tumor is palpable.

Diagnosis: Dr. Edward Baum of 723 Perry Building Philadelphia, Pennsylvania, called me in consultation and, after carefully going over the case, we both came to the conclusion that the dysmenorrhea is caused by an adhesion left from the operation performed, between the broad ligament and the lumbar region; besides this, we agreed that the broad ligament is excessively congested during the monthly period.

Treatment: Everything had been tried for Mrs. B., including codeine, opium, and similar drugs, without any marked relief. The opiate has to be pushed to almost toxic doses in order to obtain the slightest relief. We then prescribed the following:

℞ Benzyl benzoate (100%).....2 ozs.
Raspberry Syrup.....8 ozs.
M. et sig.—Two teaspoonfuls every two hours starting one day before expected period. Also,
℞ "Tabloid" Didymin[1] .....2½ grs.
"Tabloid" Ovarin .....2 grs.
"Tabloid" Mamos[2] .....1½ grs.
Haemoglobin .....1 gr.
Extract Sumbul .....1 gr.
Fit into capsule and dispense 50 such.
Sig.—One capsule 3 times daily after meals.

Results: The first three days of the period were almost entirely without pain but the flow was greatly increased. On the fourth day, the pains became worse than they had ever been before and continued very bad for four days. All the time, the flow was much greater than it had been. The treatment ordered includes reduction of subluxations of the second and third lumbar vertebras, the use of the sinusoidal current, benzyl benzoate and sedatives. A further report will be forthcoming if we are successful.

Case 29.—Mrs. C. H. Age 47. Diagnosis: Asthma.

History: Had had asthma for years; later, myocarditis developed from an acute attack of which she is convalescing at the present time.

Symptoms: The attack would begin very suddenly, mostly at night, apparently without any cause. Extreme dyspnea; patient sat at open window bracing herself against something for support. The expiration was greatly prolonged though the inspiration was normal. The expiration produced a whistling sound. Respirations numbered 30. Temperature, between 100 and 102°F. Pulse, small, rapid, often reaching 110. Cyanosis of lips and finger tips. Cervical veins stood out like cords; skin clammy and cold, bathed in sweat; cough slight, dry and unproductive. Voice, whispering and hoarse. Vocal fremitus decreased; moist, sibilant and mucous rales heard all over chest. Tympanitic note.

[1] "Tabloid Didymin" is extract of testicles.
[2] "Tabloid Mamos" is extract of mammary glands.

Treatment: Rest in bed, soft diet, mental and physical relaxation.

℞ Liquor of Potassium Arsenite 1 dr.
Tincture belladonna .....2 drs.
Sodium iodide .....2 drs.
Fluidextract grindelia robusta 6 drs.
Cinnamon water, to make.....4 ozs.
M. et Sig.—Teaspoonful in water, after eating.

℞ Benzyl-Benzoate (20% aromatic suspension "Van Dyke")8 ozs
Sig.—Teaspoonful every two hours.

Result: In three days, the attacks were reduced from ten to twelve in twenty-four hours to two in twenty-four hours. In seven days, no more attacks were suffered. Unfortunately, myocarditis set in at this stage, due to the strain on the chronically diseased heart. The benzyl benzoate exercised no beneficial action on the cardiac asthma.

Case 94.—Mrs. S. K. Age 28. Diagnosis: Dysmenorrhea.

Symptoms: Great pain every period with excessive flow. Leukorrhea in between periods.

Treatment: Corrected retroversion of uterus; ordered chlorazene (2%) douches in water at 110°F., twice daily. Leukorrhea disappeared.

℞ Cotarnine Hydrochloride .....1 gr.
Hydrastinine Hydrochloride ....1 gr.
Ergot .....1 gr.
Quinine Hydrobromide .....1 gr.
Fit in capsule and dispense 30 such.
Sig.—One a. m. and p. m. starting one day before menstruation.

These stopped menorrhagia. Then I ordered:

℞ Benzyl benzoate (20% aromatic suspension "Van Dyke")..4 ozs.
Sig.—2 teaspoonfuls every hour until relieved, then every three hours.

Result: Complete relief. After two periods of taking the ester, there was no further need of it. That was on April 17th, 1920. There has been no recurrence.

Case 48.—Miss McL. Age 38. Diagnosis: Dysmenorrhea.

Symptoms: Periodic pains and cramps. As Miss Mc L was obliged to work during this time, she sought relief.

Treatment: Uterine Sedative and Nervine (Abbott) No. 100.[1]

The formula of these tablets is as follows:

℞ Benzyl benzoate (20% aromatic suspension "Van Dyke)4 ozs.
Sig.—½ teaspoonful every two hours.

Result: Complete relief.

Case 90.—Mrs. B. W. Age 43. Diagnosis: Chronic laryngitis.

History: Had influenza and bronchopneumonia.

Symptoms: She was left with a "ticklish" cough after having otherwise made an excellent recovery from the illness referred to. The cough was very nearly constant and of a hacking nature. There was no fever or other symptom with the cough. No phlegm was raised, but frequent attacks of vomiting caused distress. On examination, the larynx proved to be edematous and inflamed.

Treatment: Tried everything including heroin, codeine, terpene hydrate, and other remedies, with absolutely no success. Tried swabbing with silver nitrate, glycerin, nuclein, alcohol; all with very little success.

One day, in desperation, I wrote out the following:

℞ Benzyl Benzoate (20%).....1 oz.
Raspberry syrup .....4 ozs.
Sig.—2 teaspoonfuls every three hours.

What was my surprise on hearing that, after two doses, the cough entirely stopped and to this day has never for a moment returned.

I do not attempt to delve into the ways and means, nor into the property of the drug that "did the trick"; but, I am satisfied that it did what the other drugs had not done. The underlying pathology is, undoubtedly, interesting; but, all the study in the world would not have helped my patients an iota. If benzyl benzoate had done nothing else, I would have been satisfied with its achievement in this last case.

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[1]The formula of these tablets is as follows:

Helenin	1/12 gr.
Viburnoid	1/12 gr.
Scutellaroid	1/12 gr.
Dioscoroid	1/6 gr.
Avenin	1/6 gr.
Gelsemoid	1/250 gr.

The Medical Treatment of Cancer

By E. M. PERDUE M. D., Kansas City, Missouri

EDITORIAL COMMENT.—We have several very interesting articles on the medical treatment of cancer; written by men who have had a wide experience in the management of this difficult problem. It will be noted that all these authors write optimistically in so far as they are quite certain that malignant disease is amenable to successful treatment if this is instituted early and if suitable attention is paid to the underlying constitutional, systemic disturbances that appear to be responsible for it. It goes without saying that the late stages of cancer itself promise but little hope except for slight amelioration and a moderate degree of palliation. The careful study of the papers published can not but arouse a definite interest on the part of the general practitioner in a subject that has all too often been neglected because of its inherent difficulties and apparent hopelessness.

THE medical treatment of cancer is the only treatment that depends for its rationale entirely upon the cause and biochemistry of cancer. The scientific treatment of this disease demands such a rational treatment. When this treatment is scientifically followed, its transcends all others in success.

What Is Cancer

In 1914, it was established that cancer is a chronic, alkaline autointoxication, and that the cancerous tumor appears at the place of chronic irritation. It was further established that this irritation may be either direct or reflex. The chemicals of the autointoxication enter into colloidal combinations with the protein substance of the tissue cells. These combinations are not soluble and can only be broken down by oxidation. These combinations are the cumulative results of the faulty metabolism and elimination of senility and autointoxication. They occur when the processes of oxidation and elimination are below par. Hence, the absolute need of internal medication to remove the hyperalkalinity, that is, to reduce the cancerous state.

I further showed, in 1915, that, while the cancer cells have a greater proliferating power than normal cells, they have less resisting power. They are killed by certain drugs while neighboring normal cells are only inflamed. Last year, in this society, I showed that this vulnerability of cancer cells is due to their greater content of loosely-bound ionized water which is easily replaced by certain drugs to the point of molecular death.

The Basis of Medical Treatment of Cancer

Upon the foregoing ratiocination, all rational treatment of cancer depends. It follows that the scientific, medical treatment of cancer consists of two distinct processes; namely, the elimination of the cancerous state of hyperalkalinity and the destruction of the cancerous tumor.

By these methods, all accessible cancers are radically curable if treated in time. There are more cancers above the collar and below the wrist band on blond men who work out of doors than all other cancers put together. All are radically curable if taken in time. Cancers of the female breast rank next in point of number. All are radically curable if taken in time. So, by far the greater number of cancers are curable by medical means.

There are two limitations upon the cure of cancer; namely:

1. The location of the cancerous tumor.
2. The extent of the cancerous invasion.

I use the term "cure" advisedly, mindful of all its "unethical" aspects. I hold that the term cure is very properly used with reference to the results of the medical treatment of cancer. A spontaneous recovery from cancer is unknown. A patient may recover from measles, pneumonia or typhoid fever without the aid of a doctor. But, the cancer patient untreated not only dies—he dies miserably. If a cancer patient is treated by a physician and recovers, remaining free from cancer, the term cure is used with eminent propriety.

The victims of cancer are a peculiar people. They have learned that they are in the grasp of a necessarily-fatal malady. They have consulted from five to a dozen physicians who have put them off with uncertain and indefinite diagnoses and palliative treatments, for fear of discipline by the medical society for "unethical" practice. They do not ask for palliation or mere relief from pain. They demand "Can you cure us?" The trained-and scientific

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physician should be able to answer them affirmatively.

The Careful Examination

When a cancer patient presents himself for treatment he is first given a physical examination. This is not a mere formal counting of pulse, measuring of temperature and looking at the tongue. It is a complete investigation, including case history, a detailed investigation of the conditions of the body and an examination of the lower orifices for sources of reflex irritation. Women are examined for laceration and pelvic irritations. Laceration of the cervix is the most common cause of cancer of the breast. After this examination is completed and of record, the patient is sent to the pathological laboratory. There, a record of name and address is made to identify the laboratory record with the record of physical examination. Then the blood pressure is taken, a differential count of blood corpuscles is made and the resistence of the red corpuscles is estimated by a modification of the method of Viola. All these findings are made parts of the record and the patient is given a container with instructions to bring all the urine passed in 24 hours.

If there is any uncertainty as to the character of the tumor, a diagnosis is made by the methods of Abrams and White.

There is no longer any excuse for a mistaken diagnosis in cancer. If the tumor is internal, diagnose it, locate and delineate it by these methods. If the tumor is accessible, it is cleaned up and dressed so that the patient may be in comfort until after the examination of the urine. On the following day, a complete chemical and microscopical examination of the urine is made and recorded.

All the laboratory findings are turned over to the physician who will prescribe for the patient.

Peculiarities of Cancer Patients

From a casting up of the records of many thousands of patients, it appears that the cancer patient is past middle life; if a blond, his skin is rough and scaly and in many instances exhibits senile keratosis. He is habitually constipated and passes a small amount of urine that is low in chlorides and alkalies, as these are retained to protect the blood from hemolysis. His temperature is subnormal and his blood plasma highly alkaline. The red corpuscles are of low resistance because of accommodation to high alkalinity and the hemoglobin capacity is low. The tissues are so stimulated by the hyperalkalinity that wounds heal by first intention and suppuration of any character is very rare. These conditions have become physiologic for the cancerous. The alkalies have produced colloidal combinations with the tissue cells and have altered their functions. These combinations can not be broken down by mere solution. Oxidation is necessary. Internal medication must be selected with great care according to indications.

Importance of Elimination

The one great object is, elimination; elimination by the kidneys, by the bowels, by the skin, by the lungs.

An excellent prescription for elimination by the kidneys is, a combination of belladonna, potassium acetate and triticum. In some conditions of anasarca, apocynum may be indicated; in others, an attenuation of arsenic. Puffy edema around the cancerous tumor may be removed by apis. The treatment must not be drastic and must not irritate the kidneys; but, it must secure a flow of from 1500 to 2000 mils (Cc.) of urine in 24 hours, of a specific gravity of about 1.020 and with elimination of from 20 to 22 Grams of urea. This elimination by the urine should be maintained throughout the course of treatment.

Elimination by the bowels is the keynote of all successful cancer treatment. The colon should be evacuated completely at least once in twenty-four hours. Oftener will frequently be beneficial if it is not weakening. For this purpose, the clinician has a wide range of remedies of which cascara and podophyllin are among the best. Drastic purgatives are to be avoided. The thing necessary is, elimination through the bowels and the prevention of the absorption of the noxious gases from putrefying fecal matter.

To drug medication may profitably be added the stimulation of the peristaltic reflexes by the methods of spondylotherapy after the criteria of Abrams. Use the sinusoidal current with one pole over the first two lumbar vertebræ and the other over the abdomen or sacrum; the current just below toleration; the treatments ten to fifteen minutes once a day for a week, then on alternate days for another week. This contraction of the colon may be varied by dila-

tion, by a similar treatment of the 11th thoracic vertebra or higher.

The necessity for removing morbific material dictates the use of remedies of the class called alteratives. The following are especially useful in cancer.

Drugs of Special Value

Phytolacca.—Especially indicated in cancer of the breast and in inflammations and tumors of the glands. Can be concentrated and used in an ointment as well as given internally in full doses.

Stillingia.—Indicated in irritation of mucous surfaces with deficient secretion, membranes red, tumid and glistening, blood dyscrasia with general enfeeblement, skin diseases of moist character, red and irritable.

Rumex crispus.—Is a renal depurant of great value when ulceration of mucous surfaces or of the skin results from impure blood. It acts directly, removes morbific material and purifies the blood.

Cascara.—Preeminently the Eclectic remedy for chronic constipation. Should be given as directed in the best textbooks on Eclectic materia medica.

Podophyllum.—For inaction of the gastrointestinal tract, with a heavily coated tongue, thick, broad and pale, with coat a dirty yellow, especially at the base; vertigo and dull, heavy headache. Circulation full and sluggish, and abdominal viscera in a plethoric condition.

Arsenicum album.—Stimulates appetite, digestion, secretion and peristalsis. Indicated in edema and engorgement around the cancer. Also indicated in squamous epithelioma and senile keratosis. If an arsenical escharotic is used externally, an attenuation of arsenic, such as the 12X trituration, should be used internally.

Calcium fluorid.—Indicated by hard, nodular, knotty tumors of the breast, especially in women under thirty.

A number of well known compounds, among them compound hypophosphites of potassium, manganese, strychnine, iron, calcium and quinine, also hydrastis and gentian compound are excellent.

The iodids of mercury, gold, arsenic and potassium.

Echinacea.—This sovereign remedy must never be overlooked. In cancer, it can be given internally, externally and eternally. If there is a remedy for blood poisoning in the materia medica, it is echinacea. It is the "vegetable antitoxin". It is useful in cancer because the blood is vitiated from faulty elimination. In the pain of mammary cancer and in chronic inflammation of the mammary gland, it is a most satisfactory remedy. In large ulcerating cancers with low hemoglobin, low resistance and high leukocytosis, give echinacea in large doses. The results are surprising.

To these must be added senna, cactus, thuja, chionanthus, chelidonium, calendula and many others. Chionanthus and chelidonium are our best liver remedies. Calendula is especially useful in promoting healing. We use a compound after the formula of Lowry, called Lowry's Calendulinc; and have used it with success in cancer of the stomach.

Routine Treatment Condemned

All remedies must be given according to indications. The treatment must not be by routine. The aim is, to cure the patient. A good rule is, to prescribe for the indications present just as if the patient did not have a cancer. The successful medical treatment of cancer does not appeal to a disciple of modern therapeutic nihilism. It demands a student of therapeutic materia medica. The only difference in prescribing in cancer is, that the nature of the malady demands that remedies be used heroically and pushed to effect.

As the cancerous state is largely due to defective oxidation and occurs in persons past middle life, when glandular activity is below par and the sexual glands are in decline, the administration of gland extracts is indicated in cancer. Thyroid and ovarian extracts will be found especially useful. Others may be added as indicated. It must be remembered that it is possible to maintain oxidation for a time above the ability of the emunctories to remove the waste. The dosage must be regulated within these limits. In the matter of organotherapy, use nothing but preparations of the highest grade. Good preparations give results.

Another very important consideration, often overlooked, is the fact that medication can do very litle good as long as certain original causes of intestinal stasis and local reflex irritation remain uncorrected. If the original cause of constipation be spinal irritation, sacroiliac subluxation, piles, pockets or papillæ in the rectum, or laceration of the cervix, this original cause must be removed. Medication alone will

not correct a constipation or obstruction due to a retroversion of the uterus. Medication alone will not cure a cancer of the breast mainly due to a laceration of the cervix.

As a result of the medical treatment indicated in the foregoing, the constipation will be relieved and the bowels become regular, appetite will become normal and the complexion clear up, assimilation and nutrition will improve and the cancer patient increase in weight and sense of well being. Hyperalkalinity will return to normal; the blood will improve in resistance and increase in hemoglobin; the blood pressure will decrease and the subnormal temperature return to normal. The urine will increase in amount and will eliminate more chlorides and alkalies. Senile keratosis and the rough skin will become smooth, the cancer tumor will be checked in growth and the inflammation, induration and swelling around it will disappear. There will remain only the destruction of the cancerous tumor.

What "Cure" Means

To me, the cure of cancer means, its complete eradication so that there shall be no recurrence. Recurrence means failure. Treatment of the tumor must always be radical. Once commenced, it admits of no temporizing or halfway measures.

All successful methods looking to the destruction of the cancerous tumor owe their success to the biochemistry of cancer, that is, to the fact that cancer cells carry an excess of ionized water loosely bound and that this water is given up to various agencies to the point of molecular death. All these methods are essentially "escharotic methods", although this term has generally been restricted to the application of remedies in the form of a paste. Heat as used in electrothermic coagulation after Doyen deaquifies the tissue or dissociates the ionized water as does cold applied in carbon dioxid frost. The x-ray and radium deaquify the tissue by aggregation. Zinc ionization and the application of the various well-known escharotics deaquify the tissues by substitution.

Escharotics

In the treatment of all accessible cancers, the chemical caustics or escharotics are the most successful, cause less deformity and loss of function and give the best cosmetic results. Some of the most useful are, arsenious acid, zinc chloride, zinc sulphate, thuja, formic acid and sulphate of quinine. Many others are recommended by workers of experience and authority, such as Pusey, Shoemaker, Stelwagon, Gotheil and Dearborn. Some of the best combinations are given by Jones. Two or three escharotic chemicals are often used in one preparation combined with other vehicles calculated to dilute the escharotic and absorb the exudates. Two combinations to be recommended are as follows:

Zinc chlorid
Powdered hydrastis
Powdered gum acacia
Powdered charcoal
Powdered galingal—in equal parts.

Mix with water to the consistency of a stiff workable paste.

Arsenious acid
Powdered hydrastis
Powdered gum acacia
Powdered charcoal
Powdered galingal—in equal parts.

Mix with water to the consistency of a stiff workable paste.

The latter of these two, containing the arsenious acid, is the stronger and quicker-acting of the two. Care must be taken in its use as the patient may absorb a toxic amount of arsenic. These preparations may be made up in weaker strength to be used on sensitive parts. Of the formulæ found in the books, Marsden's and Bougard's pastes are as good and useful today as when they were first given to the profession. Repeated attempts to discredit them do not detract from their therapeutic value.

The actual technicque of the local treatment will consist of:

1.—The toilet of the affected part, such as, washing, shaving, cleansing and disinfecting with antiseptic wash.

2.—If any part of the tumor is covered with unbroken skin, destroy this skin by painting with pure liquid phenol.

3.—Apply the escharotic paste to the part to be destroyed.

4.—Cover with paraffin tissue or similar dressing and then with a thin dressing of cotton. Seal the edges of the cotton to the skin with flexible collodion. Bandage lightly and only when necessary.

5.—While the escharotic is being used, redress entirely every twenty-four hours.

6.—With large tumors, pare off the dead tissue with a sharp scalpel before redressing with the escharotic.

7.—When the tumor is destroyed, apply a poultice of powdered slippery elm bark and

flaxseed meal, equal parts, made up with boiling water. Change every two hours until tumor sloughs out.

8.—Examine base and edges of wound. If any portions of the cancer remain, reapply the escharotic at these points until all are destroyed.

9.—Treat the now healthy sore with healing salve or dry powder as indicated. It must be dressed and properly attended at least twice a day; sometimes oftener, according to location.

The escharotic may cause considerable pain and swelling. These are unavoidable. The inflammation may be necessary. Allay the pain with a suitable anodyne. The patient should not lose sleep through the pain incident to escharotic treatment.

After the removal of the largest cancers, skin grafting will not be necessary. The sore will fill up and heal over smoothly. It may be necessary to retard the growth of epithelium so as to prevent wrinkling. Sores left by the removal of a breast, five by seven inches in extent, heal over smoothly. Specific thuja and soluble iodin are good agents to use on such wounds.

In Conclusion

The treatment outlined is in brief the line followed in an institution devoted entirely to cancer treatment and research. The research has been entirely clinical and has been prosecuted with the knowledge and consent of thousands of patients. No institution in the world has furnished such a wealth of opportunity nor attained the advancement in research and treatment. Attendants, nurses, physicians, laboratory research workers, apparatus and equipment, all combine to make the work a success.

Cancer patients demand the most exacting care. Many of them are of a peculiar bent of mind. Their ailment makes them careless and despairing. Physicians have told them that cancer is incurable except by surgery. They know that patients operated on for cancer die of cancer later. When cured, they constantly fear recurrence. Under treatment, they must be under a degree of institutional discipline. They must be required to take their medicine regularly, must come to the treatment rooms to have their cancers dressed at least twice a day and sometimes oftener. They must be examined repeatedly, the urine and blood tested, and everything done to make the cure as sure and speedy as possible. All this has led me to the conclusion that cancer should be treated in an institution devoted to this purpose only, and fitted for its own special work, if the best results are to be attained.

The Medical Treatment of Cancer

By F. REESE KENTON, M.D. Memphis, Tennessee

THE Mortality Statistics of the United States show an increase of over thirty percent, in the mortality of cancer, from 1900 to 1919. Such a condition, in the face of the wonderful progress made by Medicine and Surgery during this period, should cause all medical men to pause and consider whether all is being done that can be accomplished for the cure of this dread disease. Early diagnosis and operation have been insisted on and, no doubt, operations are performed earlier now than ten or twenty years ago, due to the active crusade and propaganda that has been carried on. But, still, the mortality is increasing. This points to but one thing, and that is, that surgery alone, however early it is instituted, is not an infallible cure for cancer.

There can be no doubt that there are general systemic conditions, aside from the local ones removed by surgery, that are causative factors in the disease and it is to these etiologic factors that I wish to direct the attention of the general practitioner, for, in a large majority of cases, it is he who first sees the patients and to whom falls the treatments of these cases in their last days when surgery, radium and x-ray have failed.

Etiology Still Doubtful

Space forbids in this article to enter into any long discussion of the etiology of cancer. Suffice it to say that, although unlim-

ited work has been and is being done in all the large laboratories of the world, nothing definite has yet been discovered; although numerous theories have been elaborated; all of them with some facts to support them. Probably there is no one cause, but a number of causes enter into to the production of these tumors.

However, there are few facts that stand out preeminently. These are, the rapid increase of cancer in the United States and in other civilized countries; its relative absence in savage races and in the aborigines of this and other civilized countries, (Williams-Hoffman); the observation that the mortality is highest in civilized countries where the standard of health is the highest and life is easiest and where the consumption of meat, alcohol and coffee is greatest.

These facts backed by masses of evidence tend to show that cancer is a disease of hypernutrition. Evidently, in our highly civilized lives, with all the nervous strains associated with them, with our highly seasoned foods and drinks, with our lack of exercise, a disturbance in the normal metabolism and nutrition is brought about which under some slight provocation produces an atypical growth of tissue cells that we call cancer.

Autointoxication a Factor

Careful clinical and laboratory examinations of those who have been affected with cancer indicate an abnormal metabolism. The patients are almost without exception constipated, even from the beginning; which means autointoxication. Volumetric analysis of the urine shows that it is always abnormal. The total amount passed in twenty-four hours is diminished as well as the total amount of solids and urea excreted. The acidity is increased. There is indican, neutral sulphur, xanthin, oxyproteinic acid and urinary ammonia, indicating errors in protein metabolism. In many cases, there seems to be a lack of phosphorus in the tissues which is also determined by uranalysis. The endocrine glands may be either too active or show deficient activity, thus contributing to perverted metabolism.

That the diet has a great influence on the formation and growth of tumors, has been shown by many observers. In countries where the food is largely vegetarian, cancer is almost unknown. Experimentally, it is all but impossible to inoculate mice with cancer when on a diet of rice and those so inoculated are mildly affected whereas mice on a mixed diet are easily inoculated and the disease is rapidly fatal in them. Patients suffering with the disease, when put on the "Bulkley" diet show wonderful improvement. In the earlier stages they slowly improve until all vestiges of the disease are gone and in advanced cases the symptoms become stationary, pain disappears, and the life of the victim is prolonged in comparative ease.

As To Treatment

The first thing necessary in the treatment of a given case is, a thorough examination of the patient. This includes a physical examination, a chemical examination of the blood and urine and, possibly, in obscure cases, the determination of the basal metabolism. Each patient is a study to himself and in no two will there be found the same underlying condition; consequently, there is no specific for cancer and probably never will be one. Each case must be treated individually according to conditions found by examination, the aim being, to restore metabolism as nearly as possible to normal.

Frequently the ductless glands may be at fault, especially the thyroid. In these cases, the extracts of the endocrine glands should be administered as indicated. The nervous system should be carefully examined as its derangements have been found by many to be an important element in the production of cancer. Phosphorus will be found to be indicated in nearly all of those cases where the nervous system is below par, and an active preparation should be used as most of the preparations of hypophosphites on the market are worse than useless.

The blood should be examined as it shows great changes especially toward the end of the disease. The hemoglobin and red cells decrease and degenerate while the white cells increase in number. There has been but little study of the blood plasma, in these cases, so far, but it is important as it holds in solution phosphates, sulphates, carbonates and chlorides all of which usually vary greatly from conditions found in health. Iron in some form, either by mouth or, in advanced cases hypodermically or intravenously, and arsenic are usually indicated for the anemia. There is an increase in the acidity and a diminished alkal-

inity of the blood as well as of the urine and this is best combated with potassium citrate and acetate which will need to be given over long periods of time. This also will help to increase the total quantity of urine passed.

These cases usually show large quantities of indican in the urine due to the autointoxication from which they all suffer at the first. It must be overcome by appropriate means striving to find the cause if possible, which may be mechanical, or nervous or due to wrong habits of life or even indolence, and may depend on a number of other different factors. A free daily action of the bowels must be maintained by some means. A long train of evils has been ascribed to autointoxication and intestinal stasis, ranging from headache and skin disease to organic heart disease, insanity and cancer.

Morphine has been commonly given for pain, but it is very undesirable as it locks up the secretions and excretions and prevents normal metabolism, which is the condition we are striving to attain and maintain. Acetylsalicylic acid can be substituted in many cases without deleterious effects, but, where a strict diet is followed and proper medication given for the conditions found in each individual case, it will be found that there is no need for opiates. Even in the last stages of the disease, the patients suffer little or no pain that aspirin will not entirely relieve.

The Diet Recommended

The diet which I use, is that originated and used for the past four years by Dr. L. D. Bulkley of the New York Skin and Cancer Hospital. Briefly, it consists of vegetables, fruits, butter, breadstuffs and cereals, to the amount of about 2200 calories per day with about 140 calories of vegetable protein and a proper proportion of fats and carbohydrates; in other words, a balanced ration. Meats, alcohol and coffee are strictly prohibited as well as all condiments. Occasionally, an egg or milk is allowed, but not often. Food should be eaten slowly and well chewed. The bread used should be at least twenty-four hours old. Water in abundance should be taken. Nothing should be eaten between meals and the habits in general should be simple with no worries and plenty of sleep. The strict observance of this diet is of more importance than the medication, although both call for attention and both must be persisted in over long periods of time if one would get and retain results. For, even after a return to health and the discontinuance of medicines, if one were to revert to the vicious habits that originally caused the cancerous condition, they would certainly invite its return.

Study the Patient.

A complete urinalysis, volumetric as well as routine, should be made at least every week and a record filed, as this is the principal guide to medication. It will be found that many medicines will have to be used over varying periods of time and many changes made to meet the changing conditions. Blood examinations, and the estimation of urea and basal metabolism will be needed less frequently but should not be neglected if results are to be obtained. The physician must study and strive to understand metabolism and its relation to the nutrition of the tissues. He must watch and study his patient in all the aspects of his life as regards hygiene, mental shocks, worry, strain, irregular sleeping and eating, mastication, errors in drink and diet—and must correct them.

While this treatment can be best carried on in a hospital or a sanatorium with a well equipped laboratory, particularly during the first few months, undoubtedly much can be done by the general practitioner working along these lines, not only in the prophylaxis, but in the curing of these cases in their incipiency. Also it is possible to prolong the lives of those who are far advanced, and save them from untold suffering. Men who have used these methods have proved this by numerous cases dating over a period of twenty or more years.

Where the General Practitioner Comes In

I do not wish to condemn early operation, or the use of radium and x-rays in cancer. By all means make an early diagnosis and have the lesion removed by whatever means is indicated in the given case, if the patient will consent. However, do not depend on it to eradicate the disease, but see to it that the patients have the proper medical attention over a long period of time. When this is done, I feel sure that the mortality from cancer will decrease instead of increasing. Rarely if ever is a patient with cancer found who has received adequate and continuous medical care and treatment before or after operation, with

a view to discovering or rectifying the cause of the morbid growth.

Too often, when cancer is suspected or discovered, it is taken as a foregone conclusion that the malady is hopeless, except as the results of the disease; that is, the new growth may be removed by operation, x-ray, radium or caustics. Too frequently, after a surgical operation, the patients are left to their own resources, with the hope that the tumor will not redevelop, but with no attempt to remove or rectify the constitutional factors that originally caused the malignant formation and will bring about its recurrence unless they are corrected.

That there is a constitutional cause of cancer, which is largely dietetic, has been held more or less, or suspected by prominent surgeons for the past hundred years, as can be shown from the writings of Lambe, Abernethy, Willard Parker, Ashley Cooper, James Paget, Arbuthnot Lane and William J. Mayo, who in his recent presidential address before the American Surgical Association asks "Is it not possible that there is something in the habits of civilized man, in the cooking or other preparation of his food which acts to produce the precancerous condition?"

And, yet, there has been relatively little done to investigate this theory of the relation of diet and mode of life as a causative factor in the etiology of cancer and we have gone on consigning our cancerous patients to the surgeon and undertaker.

Compulsory Health Insurance and the Dollar Sense

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THE axiomatic "As sure as two and two make four" is age-old and is the penultimate of affirmation, approaching in dignity the solemnity of an oath. So long as two and two make four, just so long will it be impossible for a Health-Insurance-Propaganda Premium (of 24¢ per week per employer and employee, or $24.96 per annum, per average man) to purchase, for that average man, the health service and supplies that he will need for the nine days illness which the statisticians accord him, and for the 2 43/100 days of maternity care, which the sexless, soulless statisticians apportion unto the average woman (11.43 days in all). If that health service and supplies are purchased at the present market rates, or $24.74 per sickness year, and if, with the 22 cents remaining, the statutory requirements of the Davenport (New York) bills of 1919 and 1920 are to be complied with (which, Senator Davenport modestly admits, are the best-possible kind of Compulsory Health Insurance Bills because those bills make mandatory the maintenance of a reserve and guarantee and, since the General Insurance Law requires insurance corporations to maintain a 25 percent reserve and a 25 percent guarantee), the least we might expect of this child of the American Association for Labor Legislation, whose sire is the erstwhile Paranoiac of Potsdam [Not quite! William was not clever enough to conceive that wonderful, Machiavellian scheme. Its originator was Bismarck.—Ed.] would be, the maintenance of a reserve and a guarantee of 15 percent of the premium ($24.96); namely, $7.49.

2.—Then, these Davenport bills provide for cash benefits for 6 of the 9 days the average man is sick and for the maternity benefits (2.43 days), both at the rate of $8.00 per week of seven days, or $1.14 per day; that is, a total of $9.61; to which must be added the average man's $1.45 provided for funeral benefits, or a total of $11.06 which, added to the $7.49 men-

tioned in the preceding paragraph, makes $18.55.

3.—Now, here is where that "two and two make four" axiom gets a black eye because, by a process known only to professors of political economy and reduced to a formula by the conspicuous (if not distinguished) Senator Frederick M. Davenport, erstwhile Professor of Political Economy at Hamilton College (N. Y.) and delivered with his very best professorial pose at a debate before the Kings County (N. Y.) Young Republican Club, December, 1919:

"The Cost of this Compulsory Health Insurance, to the State of New York, will be distributed in increased efficiency and good will."

That is to say, the twenty-two cents mentioned in the opening paragraph being the rest, residue and remainder of the propaganda premium, after buying health service and supplies at prevailing rates, will be sufficient to pay the totals referred to at the end of paragraph 2 and, in compliance with a Section (30) of the Bills, also to bear the expense of adminstration. (N. B.—Reports of 14 large employers of labor who conduct a Workmen's Insurance in New York State show the administration cost to average 24 percent of the annual premium.) Even assuming the administration cost of the Compulsory Health Insurance plan to be only 16 percent (of $24.96), this would mean $3.99, which, added to the $18.55 spoken of at the end of paragraph 2, would mean a total statutory expenditure, for cash benefits, maternity benefits, funeral benefits, reserve, guaranty and administration, of $22.54. With only twenty-two cents to pay it!—"It can't be did."

4.—Let us try again:—Let us do what we have to do; to satisfy the "Something for Nothing Lads", to keep out of conflict with the State Insurance Department and to keep solid with the political patronagists and the professional philanthropists who need jobs to compensate the faithful and to encourage the protégés and graduates of the Foundation's Schools of Sociology, Psychology and Philanthropy. This will necessitate provision for the statutory expenditures totalled to the end of paragraph 3 ($22.54), leaving the rest, residue and remainder ($2.42) with which to pay for the health service and supplies for the average man, for his sickness year of 9 days and for the 2.43 days of maternity care predicated upon the pregnancy of the insured workingwomen or the wives of insured workingmen: That is to say, for these 11.43 days, there must be furnished all the doctor, consultant, specialist, surgeon, nurse, dentist, druggist, hospital, sanatorium, dispensary, laboratory and all the medical and surgical and obstetrical supplies that may be needed by, for, and through all these agencies of healing. To pay for all this, there is $2.42 in cold, hard cash and that deliciously comforting formula of Senator Davenport's:—*"The Cost will be distributed in increased efficiency and good will!"*

5.—Oh! yes . . . there is something else; the same old natural law which nullified King Canute's fiat, that the ocean recede, and made His Highness "duck" to save his royal slippers, and that makes a dollar bill either a work of art or a token of value, depending upon whether you are treasuring it or spending it: If you have 24 and 96/100 of those pretty green pictures, you can do one of the two things I have just recited; but, you can not do both; you can not buy $24.74 worth of health service and supplies for $2.42; neither can you disburse $22.54 worth of statutory cash, maternity and sick benefits, reserve, guaranty and administration from a purse containing two dimes and two pennies. Fiat legislation to the contrary notwithstanding, the economic premium will be $47.28 on the ridiculously low estimate for reserve, guaranty and administration (paragraphs 2 and 3); or 10 and 3/10 cents of every dollar a workman earns upon the basis of an economic premium which eliminates confiscation and embraces equity.

6.—This, on the supposition that the prevailing rates for health service and supplies are maintained and are neither decreased to the point of confiscation nor increased to the "average of $2.50 per visit" so glibly offered by one of the conspicuous campaigners of the American Association for Labor Legislation at the Michigan State Medical Society meeting, Kalamazoo, a few months ago.

7.—The American Association for Labor Legislation which conceived and brought forth these Davenport Compulsory Health Insurance Bills in New York and elsewhere, telis us in substance:—

"The people are spending this money now, but they are making a mess of it, poor fish. We, the inspired, kultured ones will centralize, communize, sovietize and efficiency-ize

it and, by dissipating the silly notion of a personal choice of a personal physician and corralling the agencies of healing into politically dominated groups of piece-working units controlled in the exercise of their faculties by medical "foremen" in charge of gangs, we shall make disease as if it never was and the people will rejoice and be glad of this wise social experiment which takes from them the disposition of 10 and 3/10 cents of every dollar they earn, either as premiums or as premiums plus taxation to make good the deficit of $90,000,000 per year for the $4,000,000 beneficiaries (victims) of Compulsory Health Insurance in N. Y. State, to wit $22.32 deficit per average man" (see paragraph 3).

8.—Just let us suspend this dollar-sense for a little while and set in operation our common, ordinary, horse-sense: Dr. Rupert Blue, former Surgeon General of the U. S. Public Health Service, as part of a New Year's (1920) greeting to the lay and medical journals of the United States, recited the fact that:—

"During the last twenty years, it has been possible to reduce the general death rate in the United States from 17.6 to 14.2. This represents a truly enormous saving of life."

In that score of years, the people of this country have followed the plan of freely choosing a doctor to stand between them and death when disease enters the home and of choosing him not because he wore the tin-badge of politically-controlled servitude, but because his advent insured a service not measurable by the dollar-sense. Throughout all those years, as individuals and as a class, the medical men of this country have given their all, in peace and in war, that in the battle with disease and death their beloved people should have the best, whatever the sacrifice in time and money and energy. They have kept the escutcheon of their order clean; no bar-sinister has been struck into its shield, and the serviency of panelization under a compulsory health insurance, state medicine, (health centres) or the national socialization of medicine shall not be part of the practice of medicine, unless the people desire it because we become unworthy, or unless they tolerate it because we are neglectful of the duty to warn them of the vicious nature of this type of legislation, with all the earnestness with which we shall warn them of the menace of the bubonic plague.

9.—What doctor, worthy of the name, can give heart-service to a card-indexed unit to whom he is an impersonal cog in a political machine? Let us call a spade a spade. What man of you, who knows public institutions, does not know, down in his heart, that the system breeds professional routineism and individual indifference to the human element of sympathy? Is it to be expected that, by increasing institutionalism, we are going to control the personal equation that prompts a man to limit his energy to the size of his compensation? Some of the sacrosancts in medicine will be shocked, I know, and gasp that I am indicting the medical service in our public hospitals: Well, I am doing just that! Not the visiting medical men who are the same foolishly-fond, God-revering, creature-loving, self-sacrificing "poetic" doctors that Rubinow sneers at. They are doing their great work for the same nothing that they have always done it; not the internes in training, because they, too, are idealists with whom the thirst for practical knowledge subordinates the hunger for gain. But, wherever you turn, in municipal, state or national institutions, human nature is the same. "The Officer's Lady and Judy O'Grady are sisters under the skin," and an assured income makes for indifference; a salary-check checks ambition.

It is bad enough, in all conscience, even when the controlling officer is a medical man. But, it becomes appalling when it is to be a group of professional philanthropists, of protégés and graduates from the Foundation's Schools of Sociology, Philanthropy and Psychology, as is the ulterior purpose of the instigators of this vicious type of legislation, and when these middlemen are to be manipulated in their functions by the university, parlor, magazine and gutter forces of unrest who dominate the activities of such organizations as the A. A. L. L. and invoke the name of the President of these United States as a fellow-officer when their own Americanism is impugned. It is this institutional type of politically-bossed, inadequately-salaried, or fee'd, ambitionless, impersonal agencies of healing that the people must submit to unless they say and say it as emphatically as they said their say about Compulsory Health Insurance in 1919.

10.—You may be assured that compulsory health insurance would have been put over if it had been possible, and that that would have been merely a wedge leading

to the "Socialism in Eccelsis" which Doctor Harris of Dalhousie College calls "State Medicine." This State medicine is but a stepping stone to the national socialization of medicine through a federal department of public health and welfare with a secretary in the cabinet to be subrogated to the control and domination, politically, of the agencies of healing as cogs in a huge political machine.

11.—Do the people want this or do they not? How in the name of common sense are they to know the viciousness of this type of "uplift" legislation unless we tell them what it is and what is the purpose back of its propagandists? How are we going to do this unless we learn and know and then teach our people. Then, if an informed American people deliberately demand or passively permit this radical change in the plan of caring for the sick, let us as self-respecting medical men do one of two things: (1) Refuse to help make operative these destructive laws, even if they pass fifty medical practice (re-registration) acts to "take away our licenses to practice medicine under the police power of the state," as threatened during the campaign of 1919; or, (2) let us adapt ourselves to the new order of things and, being no longer permitted to regard the practice of medicine as a sacred profession but compelled by law to regard it as a sordid business, let us learn to realize that "self-protection is the first law of nature" and see to it that this "business" yield us an adequate return and that we restrain our impulses to be "poetic doctors," with whom sacrificial-service is a religion, becoming instead prosaic practitioners with whom time-service is a necessity. Then, as a corollary of the individual impersonalism forced upon us, let us convert our scientific medical societies into labor unions.

Horrible! isn't it? Yet, it will be horribly imperative unless you wake up and wake your people up and keep them awake. Four thousand physicians, victims of compulsory health insurance operation in Vienna, Austria, by reason of an earning capacity reduced to the equivalent of $4.39 per month (American money), sent an appeal for alms to the doctors in this country, through a committee, in New York, for hospital relief in Vienna. Then it dawned upon them that "God helps those who help themselves" and, at last, they STRUCK.

12.—It is desirable and necessary that the people's concept of the doctor shall continue to be that which the familiar picture of "The Doctor" carries to the mind of the right-thinking man. To accomplish this, it is imperative that we, as medical men, learn what this vicious legislation is and means and warn our people, that they may say their say in a tone that will be heard and in a language that will be understood by legislators and leaders anxious to maintain party solidarity. Equity says:—"He who will not speak when he may, may not speak when he will." This is the doctrine of laches and is the punishment for "sleeping on one's rights." Let us not fail in the duty of *uberrima fides,* that reason and the law impose upon us as agencies of healing, to warn our people of the imminence of this social disaster as we would warn and guard them against the bubonic plague.

YOU will realize the Vision (not the idle wish) of your heart, be it base or beautiful, or a mixture of both, for you will always gravitate toward that which you, secretly, must love. Into your hands will be placed the exact results of your own thoughts; you will receive that which you earn; no more, no less. Whatever your present environment may be, you will fall, remain or rise with your thoughts, your Vision, your Ideal. You will become as small as your controlling desire; as great as your dominant aspiration.

James Allen.

What Others are Doing

TREATMENT OF ECLAMPSIA

A large number of modern obstetricians advocate in their textbooks and teach their students that the safest and best procedure in a very large majority of these cases is, to empty the uterus as rapidly as possible. While statistics published by authorities appear to indicate that this method yields the best results, for the mothers, it is claimed that the mortality records of general practitioners probably would compare favorably with hospital statistics. And this despite the fact that many general practitioners do not adopt this teaching of prompt termination of pregnancy.

In *The Canadian Medical Monthly*, for September, Dr. T. S. Farncomb, of Trenton, protests against the teaching referred to, affirming that, in an overwhelming majority or cases, the safest treatment, both for mother and child, is to give sufficiently large doses of morphine to keep the convulsions under control wherever this is possible, and to leave the uterus absolutely alone. "If one could feel sure", Doctor Farncomb says, "that delivery would put an end to all danger of further convulsions, interference might be justified. But, is there any man who has practiced obstetrics for a number of years who has not seen terrible attacks of eclampsia that commenced several hours after the termination of apparently normal labor?" Consequently, he claims, the advocates of prompt interference can not claim that the patient, even after successful delivery, is free from danger of further convulsions.

Doctor Farncomb has seen several cases in which women had eclamptic attacks in the sixth and seventh month of pregnancy and were tided over with morphine, who not only went to full term and were delivered of strong healthy babies but in whom the albumin entirely disappeared from the urine within a few days after the convulsions ceased.

As soon as the patient is seen, Doctor Farncomb declares, she should be given ½ a grain of morphine, with or without atropine. Everything should be kept as quiet as possible, as any noise may bring on a fresh convulsion. If the patient becomes restless, if the face commences to twitch or any symptoms arise which make one suspect the danger of another convulsion, immediately inject another ½ grain of morphine. Afterwards give a ¼ grain after each convulsion no matter how closely they recur. It seems hardly possible to poison a patient with morphine under these circumstances, and, anyway, an eclamptic woman, in whom the convulsions were not controlled by 2 grains of morphine administered in the course of three or four hours, would most certainly die from the effects of the convulsions if the morphine were not administered. Keep the patient absolutely quiet until all danger of a recurrence of the attack appears to have passed; if she is conscious enough to ask for a drink, give a little water or buttermilk—not sweet milk. Then, as soon as all danger of further convulsions is apparently over, eliminate the poison as rapidly as possible both by repeated saline cathartics and by enemas. Keep the patient in bed and on a liquid diet until the edema has disappeared and the urine is free from albumin.

While it is true that, under this method of treatment, also, some patients die, that holds good for every form of treatment. We believe that Doctor Farncomb might usefully have added veratrine to his treatment as soon as the effects of morphine have become manifest. He wisely stresses the necessity of prompt elimination, not only of the morphine that has been administered, but also of the toxic substances accumulated in the blood. This elimination is a precaution of essential importance.

Incidentally, we may mention that the attempt has been made to explain the occurrence of eclampsia by assuming an insufficient function of the parathyroids. According to Harrower ("Practical Hormone Therapy", p. 223), Vassale, of Turin,

succeeded in controlling the convulsions by means of parathyroid medication, and insists on the value of this treatment. Falta-Meyers ("The Ductless Glandular Diseases", 1916, p. 207) say that, in eclampsia, the cardinal symptom of parathyroid insufficiency, namely, the galvanic excitability, is absent. Although it seems very probable that the occurrence of eclampsia, which is closely related to "tetany", is associated in some respects with an endocrine insufficiency, not enough information is available on the subject to enable us to draw satisfactory conclusions.

FOREIGN BODIES IN THE EAR AND AIR PASSAGES

It is the little things that count in the sum total of work done, for the reason that, in most lives, there naturally are more little things to attend to than affairs of large magnitude. Of none is this more true than of the doctor with a general practice.

For him, there are some good suggestions in a paper by Atkinson (*Amer. Jour. of Surg.*, Aug., 1920) wherein he tells how to remove foreign bodies from the ear and air-passages. Insects lodged in the auditory canal, for instance, are easily removed by first instilling a 5-percent solution of chloroform in glycerine into the ear; this anesthetizes the intruder, whereupon he may be expelled by syringing with warm water.

Beans, seeds and pebbles in the ears of children, if not dislodged with syringing or forceps, are quite often removed by means of a match dipped in glue.

As to foreign bodies in the nose, some advise pushing them backward into the throat; but in this there is always danger of their dropping into the larynx and causing strangulation. It is best to seize them with forceps through a speculum. Buttons and other objects of smooth surface may be drawn out with a small hook.

Screw worms in the nasal passages often distress people, especially when they invade the sinuses; their presence in the nasal discharges makes the diagnosis easy. Syringing with alcohol-chloroform solution (9:1) will usually remove them; this should be done hourly till they disappear.

A foreign body lodged in the throat is more serious. Pounding the person on the back between the shoulder blades may aid expulsion.

THE FAILING HEART

No doubt, many a death which in the newspaper columns is attributed to acute indigestion and, frequently, sudden collapse in the street or elsewhere, is in reality of circulatory origin, proceeding from a weakened heart muscle if not from organic lesions affecting the heart and brain.

Whatever the cause, nobody need be told that quick and powerful stimulation is needed. For such cases, Robinson (*New York Med. Jour.*, May 15, 1920) prefers strophanthus. This is the best rapid restorative, in his opinion. His custom is, to give it sublingually. Time is precious; to insert a hypodermic tablet under the tongue is the work of a single moment whereas, to prepare a dose of ammonia, requires several moments, some of which are consumed in the quest for a spoon and tumbler. He uses tablets containing 1 minim each of the tincture. But, tablets affording the active principle, strophanthin, should be more reliable; one tablet containing gr. 1/128 may be used in the same manner. It is best not to give even so much as a swallow of water for at least three to five minutes. Absorbed in the stomach, the drug does not act so well as when it is absorbed under the tongue from the buccal mucosa. It is probable, as the writer surmises, that the gastric fluids in some way retard or annul its action.

NIGHT DYSPNEA

Shortness of breath at night, due to slight heart lesions, comes quite frequently to notice. The complaining person, while fully or nearly asleep, and breathing shallowly, becomes conscious of it at intervals; and it often awakens him; the sensation is most disturbing but may sometimes be prevented by lying with the head high, upon two or three pillows. If this fails, as often it will, one of the milder hypnotics may suffice symptomatically, as suggested by Pardee (*New York Med. Jour.*, June 26, 1920). Of such hypnotics, diethylbarbituric acid (barbital) is recommended. A moderate dose or two before retiring, by causing the patient to sleep more soundly, will

by the same token help him to get through the night without being awakened by the sense of dyspnea and impending suffocation.

In patients showing this symptom, along with high blood pressure, the writer thinks that sodium bicarbonate in 30-grain doses three times daily is beneficial, because it relieves the acidosis present in many of the cases. Constipation is to be avoided so far as possible.

The value of digitalis is recited. As a rule, the drug is needed in irregular or fibrillary heart, especially when the heart rate is continually above 85 or 90 to the minute. High blood pressure is not considered a contraindication. On the other hand, it is found in practice that patients with hypotension do very well under digitalis. Seldom if ever does it augment the blood pressure.

If the blood pressure is really so high as to overtax the heart muscle, attempts may be made to reduce it. Sodium nitrite is mentioned for this purpose, though benzyl benzoate perhaps will serve better. Rest is enjoined; ten hours of sleep is none too much, to secure which, barbital should be resorted to if necessary.

THE FLAVINES INTRAVENOUSLY IN PUERPERAL SEPSIS

In a paper published in the August 21, 1920, number of *The British Medical Journal,* Sir Beckwith Whitehouse states that, for the last twelve months, he has been employing intravenously a solution of flavine (or acriflavine), 1: 1000 in normal saline. This has been given in cases of puerperal septicemia and pyemia. This antiseptic has the advantage for intravenous injection that it is not a protoplasmic poison and has no effect on red or white corpuscles. The 1: 1000 solution is administered in doses of 10 to 15 mils, injected intravenously into the median basilic vein, the same technic being employed as for the arsenical preparations used in the treatment of syphilis. As a rule, one injection is given per day, though in severe infections two doses are administered, one in the morning and one in the afternoon.

Doctor Whitehouse says that he has been very much pleased with the results obtained, recovery having occurred promptly in every patient so treated. As yet, he is not able to submit a long series of cases, therefore, he withholds opinion as to the value and limitations of this method.

GONORRHEA IN WOMEN

Acriflavine is just as efficacious in the treatment of gonorrhea in women as it is in the treatment of this disease in men, says Dr. M. W. Browdy in the August 21st, number of *The British Medical Journal.* The routine which he employs is as follows:

The patient is ordered to sit in a hot bath containing lysol, for twenty minutes daily; then, after placing her in the lithotomy position, he swabs the external genitalia with a solution of acriflavine (1 in 1000). If the urethra is involved, it is also swabbed by means of a little cotton-wool on the end of a probe dipped in that solution. A Sims speculum is next inserted into the vagina and the cavity similarly treated. Diseased foci are searched for and destroyed if present. The vagina is then lightly packed with gauze soaked in acriflavine, which is left in place for twelve hours. The packing aids draining, separates the surfaces, and permits of a continued action of the antiseptic; it further prevents the formation of condylomas by absorbing the discharges. This treatment is carried out twice daily. Within ten to twelve days, all discharge usually ceases. Pessaries containing lactic acid bacilli are then prescribed, one of these to be inserted night and morning. These act as a fair substitute for the normal vaginal Döderlein bacillus.

HAND DISINFECTION

Titus (*Boston Med. and Surg. Jour.,* Sept. 23, 1920) regards puerperal sepsis as a surgical fever resulting from bacterial infection introduced into the vagina by the examining finger prior to or during labor; while admitting the possibility of sepsis originating from the bacterial flora within the vagina itself at the time of delivery, he believes that the infection is usually introduced from outside the pelvis. On these grounds, he urges the need of cleanliness to the limit.

The experience of Semmelweis, of Vienna, is recalled. Suspecting the origin of the infection which was carrying off so

many women, he laid down rules in his hospital (1847) which caused the mortality curve to sink from 9.92 to 3.8 percent and, eventually, to 1.27 percent; this very largely due to the simple expedient of washing the hands in a calcium-chloride solution.

In view of the ascendancy of the chlorine antiseptics in professional regard, this is most interesting. While reflecting upon it, is occurs that a soap incorporating one of the newer synthetic chlorine compounds would suit well the requirements in question, that of thoroughly cleansing the hands prior to exploring the body cavities and operations of every sort; the cleansing power of a good, neutral soap, readily lathering with water, is certainly something worth while. As a matter of fact, a powdered soap of this very kind has recently been put out by a leading Chicago laboratory and gives promise of meeting a real want.

There are skeptics who sniff at the idea of any germicidal soap, in the process of hand washing and rinsing, serving any good purpose whatsoever. To us, pessimism of this brand is scarcely justified. Given a soap carrying a strong antiseptic, such as chlorazene is, in proportions to yield a germicidal solution of adequate strength, it is fair to assume that a very high degree of cleanliness, amounting practically to a sterile condition or at least approaching it quite closely, may be attained, provided at the same time that the washing and rinsing be done thoroughly.

EMPYEMA

We read that Mozingo is treating empyema surgically by a closed method, as described below. Dealing with 138 cases, the operation was attended and followed by such success that the mortality went no higher than 2 percent.

He introduces a trocar and canula into the eighth intercostal space, back of the axillary line, under local anesthesia. The trocar is removed and a 4-mm. seamless tube inserted into the cavity through the canula, which latter is then removed. The fluid is drawn away either by a Potain aspirator or by a ½-ounce bulb syringe, after which the cavity is cleansed with Dakin's antiseptic or physiologic saline, depending on the condition of the patient. The tube extends from 8 to 15 cm. inside the cavity and about 15 cm. externally to the chest wall; its end is capped with a rubber from a medicine bottle to decrease chances for contamination and held on by a clamp to maintain negative pressure.

After from two to fourteen days of treatment with Dakin's solution alone, 2-percent formaldehyde in glycerin is injected into the cavity once daily, following the irrigation with Dakin's antiseptic. This treatment is usually continued for ten days. When the secretions have become a clear serosanguinous fluid, and after smears and cultures have been negative for three successive days, the tube is removed, from 3 to 10 mils. (Cc.) of formaldehyde solution being left in the cavity. Finally, the tube being removed with care so as to exclude air, the sinus is treated with iodine and then closed with adhesive plaster.

SAFETY IN PROSTATIC OPERATIONS

A helpful article on the subject indicated in the title appeared (*Tex. State Journ. of Med.*) last month, written by Singleton.

Uremia is perhaps the commonest cause of death following removal of the prostate gland. Hemorrhage comes second, with shock and infection figuring in the order named.

Death from the first cause may often be averted by using the phenol-sulphonal-ptyalin test for determining the functional status of the kidneys and their likelihood to withstand the strain of the operation. The blood-urea content is usually, though not always, a guide to operable cases.

Otherwise, uremic complications are avoidable by suprapubic drainage of the bladder, while daily irrigation of the urinary bladder during the preliminary drainage acts to prevent or lessen infection.

More cases than some think are lost by hemorrhage; in old people, loss of blood is relatively more serious than in the young. To check bleeding, the author infiltrates the tissues with adrenal solution before enucleating the gland; for the rest, he depends on packing.

Nerve blocking is the best form of anesthesia (local and sacral combined) since it conserves the patient's strength and prevents shock. Procaine, with adrenalin, is not cited but it might be excellent in this operation, it would seem, being less toxic

than cocaine and most suitable for nerve blocking in general.

The author concludes that:

The "Dakin solution," because of its great solvent and bactericidal action, is the most-nearly ideal agent to use; it dissolves the fibrinous exudate and sterilizes, at least partially the empyemic cavity.

Instead of the hypochlorite solution first proposed (and later abandoned by Dakin himself) the commercial chlorine-bearing synthetics (as, chlorazene) may be used by those who have not the facilities for making or testing a proper sodium-hypochlorite solution.

TWILIGHT SLEEP

Last August, Barnes reported thirty cases of labor (*Jour. Ind. State Med. Assn.*) in which delivery was made under twilight-sleep narcosis. His practice is, to give morphine, gr. 1/6, and hyoscine hydrobromide, gr. 1/133, the latter dose being repeated twice at intervals of forty-five minutes, the further need varying in each case. Strong, regular pains at intervals of five minutes in primiparas and every five to ten minutes in multiparas tell when to begin the injections; one is also governed by the dilatation of cervix.

Quiet in the delivery room is desirable and light gauze pads fastened with adhesive over the eyes are advised. To determine the degree of narcosis, the finger-to-nose coordination test is used by the author. The general reaction of the patient to stimuli is also a guide. In 1179 primiparous women, the average number of injections needed was 4.8; in 1256 multiparous, it was 4.6.

The length of the first stage was unaffected. The second stage was prolonged, only slightly in multiparas and from one to four hours in primiparas. Mild restraint was required in 6.6 percent of the cases; but none of these were maniacal.

There were five infants born in oligopnea, or 20 percent. Administration of morphine less than three hours before birth will account for most of these cases. There was one stillbirth in a case of labor lasting thirty-six hours. One patient had severe postpartum hemorrhage. Only five infants failed to regain weight in two weeks.

Successful amnesia was secured in 50 percent of the cases, partial in 40 percent, failure in 10 percent. Most of the failures were attributed to starting the injections too late. The average length of labor in 20 primiparas was 19.5; in 10 multiparas, 11.3 hours. There was no maternal mortality. In the successful cases, less postpartum exhaustion than usual was noticed.

A fixed dosage is decried; one must individualize. If by the third injection the patient is not under influence, a few whiffs of chloroform will help. The patients should be given a sip of water frequently. Catheterize after eight hours. If pains subside, pituitary solution may be given. Twilight sleep is unsuitable in placenta prævia and other condition in mother or child precluding natural birth. No case of mania has ever been seen by the author. He believes that the method increases the number of low-forceps operations from 8 to 10 percent. On the other hand, in many cases in which forceps are applied because parents or patient importune, labor can be terminated under twilight sleep by a natural or at most a low-forceps delivery.

CHLORAZENE USED SUCCESSFULLY IN CANCER

Dr. B. H. Scott, of Harrison, Ohio, has reported some remarkable experiences with chlorazene in cancer:

The first case was one of cancer of the cervix in an elderly woman. A 2-percent solution was applied, by douche and by swabbing. It was first used as a deodorant. After a few weeks' treatment, it was noticed that the growth was shrinking. Finally, it became detached from the healthy tissue and, after six weeks, was removed by hand, there being only slight adhesions. The patient is continuing the douching, and at the time of the report there was no return of the growth.

The second case was one of cancer of the throat. The patient had consulted a surgeon who refused to operate. A 2-percent solution was applied and satisfactory results were reported—similar to those obtained in the preceding case.

In the third case, there was a growth back of the left ear. Similar results were obtained.

We give this report for the information of our readers with the hope that others will try this method of treatment and report results. Of course it is impossible to

make deductions upon such slender evidence, still, the doctor's experience is certainly most encouraging.

THE SIPPY TREATMENT FOR GASTRIC ULCER

It is the belief of many leaders in the medical profession that the Sippy treatment is the most effective one so far conceived against gastric ulcer. Friedenwald, for one, has recently confirmed this in a report of 403 cases so treated. The proportion of cures achieved by him was 86 percent, which is considerably higher than that claimed for other recognized nonsurgical methods.

It is agreed that many cases get well with ordinary treatment or none at all; of such the report includes 182. The rest, however, belong to classes designated as moderately severe and in which there was pain, hemorrhage or vomiting over a period of months; and the severe, in which hematemesis was persistent or recurrent, with melena and pylorospasm, or evidences of partial obstruction.

The treatment is both medicinal and dietetic. It aims to (1) neutralize gastric acidity; (2) reduce the dietary to the simplest terms. The first object is accomplished by giving generous doses of alkaline salts between feedings and, when necessary, by aspiration of the stomach contents before retiring; the second, by giving the patient milk, two-minute eggs, purees and other soft nonirritant foods. Aside from this, on the assumption that ulcer has its origin in migrant products of some focal infection, this is sought out and disposed of if possible; also anemia, if present, is combated with iron; arsenic, nuclein, or other suitable remedies.

As deduced by the Rehfuss method of fractional analysis, hyperchlorhydria is usually noted in ulcer. If one take occasion to withdraw the contents of the stomach when pain is present, one almost always finds an excess of free hydrochloric acid. An ulcer once started grows by irritation and corrosion from this source. Thus also is pain caused in large part. The Sippy treatment protects the sore from such unfavorable contact and, by reducing the work to be done by the stomach, gives its affected tissues a chance to right themselves or be righted by the physiologic process of repair.

Here in brief is the treatment: The patient is put to bed for three or four weeks; he is fed every hour during the day from seven to seven, not more than 6 ounces at any one feeding; he is given milk and eggs to start, then soups, then custards and jellies; between feedings, he is given 10 grains of heavy calcined magnesia and 10 grains of sodium bicarbonate in one powder, alternating with a powder composed of bismuth subcarbonate and sodium bicarbonate, of the same grainage; the powders are also given for several doses after the last feeding, at half-hourly intervals.

If this is not sufficient to overcome the acidity, the dosage is increased. Sippy himself, to this end, gives as much as 100 grains of sodium bicarbonate after the last feeding. At times, it will be necessary to aspirate. But, usually, after the fourth day, there is no excessive gastric secretion after midnight. At the end of ten weeks, the intervals between feeding may be increased to two hours, with twice the amount of food given, and two powders between times.

QUININE FOR HEMOPTYSIS

As a symptom almost pathognomonic of pulmonary tuberculosis, hemorrhage from the lungs is quite common and always alarming. Even when amounting to no more than a streak in the sputum, its effect on the patient is almost invariably bad, throwing him into a state of despondency which lasts for days, while such an occurrence is scarcely less woeful upon his relatives and friends.

As for the physician, he is not as a rule worried except when the loss of blood is such as to weaken the patient. However, in view of the psychological impression made, it becomes desirable in all cases to prevent a recurrence.

To this end, Strobel has used quinine in his sanatorium cases, with very good results. He gives the drug in 5-grain doses every four hours, for one week. At the same time, the patient is put in bed, on a liquid diet, with an ice-cap on the chest. Under this treatment, hemorrhage has become a rare occurrence in his institution, or, when it does occur, it usually clears up promptly.

Let's Talk it Over

Experiences In Over Three Thousand Obstetric Cases

ATTENDANCE upon more than three thousand obstetric cases in a busy professional life extending to more than fifty years can be possible only to a physician who is fully alive to and keenly conscious of the dignity of the obstetrician's work. Dr. S. P. Ford, a practitioner residing in Norwood, Ontario, some time ago, presented to the Peterborough Medical Society an analysis of three thousand cases of obstetrics which was published in *The Canadian Medical Association Journal.*

To Doctor Ford, the role of the accoucheur in ushering a new life into the world was one of great dignity. He considered it an honor in being permitted to act as a coworker with the Almighty in this most honorable of all occupations. From the first time that he entered a lying-in-room, more than fifty years ago, as accoucheur, down to the last time, only one night preceding his address, he always did so with a profound sense of the responsibility resting upon him as well as the great honor conferred. Feeling thus about the matter, he says, no amount of money was ever considered sufficient to induce him to interrupt the course of a pregnancy. In those cases when it was considered necessary to do so in order to preserve life, as, in the case of pernicious vomiting or puerperal eclampsia, it always was undertaken reluctantly and only after consultation. Never, indeed, in the case of illegitimate pregnancy unless the same distressing circumstances prevailed.

Doctor Ford's introduction to this branch of medical activity was somewhat disheartening and might well have turned him into different paths whereby his clients and we, likewise, would have been deprived—the former of valuable service and we of instructive records. He relates that his first case, which came to him a few days after commencing private practice, was a monstrosity of that peculiar type in which the whole superior part of the calvarium was wanting. On making the preliminary examination, his finger struck the brain substance, and for some anxious moments he did not know where he was. His second case was one of twins at seven months, in a primipara, aged eighteen, both breech presentations. His third case was still worse, an arm and shoulder presentation, also in a young and somewhat hysterical primipara, necessitating podalic version. His fourth was a case of rigid os uteri which, for twenty-four hours, resisted all efforts at dilatation, and he was not then familiar with the more modern methods of overcoming the difficulty. The next was one of, what he thought then, a frightful case of postpartum hemorrhage, and he declares that his courage oozed from his finger tips as rapidly as the blood flowed from the patient. Small wonder was it that he began to think that he had made a great mistake in entering the medical profession, and laid awake at nights dreading to hear the doorbell ring, lest it should be a call to another nerve-racking case of confinement. But, time, the great healer of all things, finally came to his relief; his next ten or twelve cases were all on Easy Street, so that he regained his courage and was not seriously alarmed again until he met his first case of placenta praevia, several years later.

Of the three thousand cases attended by Doctor Ford in the course of fifty years, 1574 of the infants were males and 1424 were females, while two were hermaphrodites.

The number of first confinements was 1542; that of second confinements 725; third, 275; fourth, 125; fifth, 74; sixth, 70; seventh, 47; eighth, 42; ninth, 38; tenth,

32; eleventh, 20; twelfth, 8; thirteenth, 5; fourteenth, 3; fifteenth, 2, and sixteenth, 1.

His youngest patient was a little girl who became pregnant at the early age of twelve years and nine months, and was delivered of a healthy well-formed male child at the age of thirteen years and six months. His oldest patient lacked only two months of completing her fiftieth year, and, strange to say, in both these cases labor was comparatively easy.

The author observed forty cases in which the mothers were over forty-six years of age, and twenty-five in which their age was under fifteen. There was one case in which pregnancy did not take place until eighteen years after marriage, although husband and wife were both apparently in perfect health, devoted to each other, fond of children, and cohabited during the whole period. There were three cases in which fourteen, sixteen and seventeen years respectively intervened between the first and second pregnancies.

Among the total of three thousand confinements, there were thirty-six cases of twins; in five cases, both children were males; in six cases, both were females. In the remaining nineteen instances, the infants were male and female. Seven times there was a breech presentation of both infants. Nineteen times, the presentations were head and breech respectively; four times, head and feet. In twenty-four of the twin pregnancies, one placenta served for both infants. Six times, there was a placenta for each. In six cases, there was unmistakable placental disease resulting in every case in the death of the child, either before or shortly after birth.

The author attended on nearly one hundred illegitimate births, a large proportion of them during the first twenty years of his practice, which he accounts for by the greatly improved moral and social conditions prevailing in the community during the last thirty years.

AN ANALYSIS OF THREE THOUSAND CONFINEMENTS

In the foregoing article, we referred to the remarkable experiences of Dr. S. P. Ford, of Norwood, Ontario, who, in the course of fifty years, attended to more than three thousand cases of confinements. It will be of interest to briefly take account of the groups in which these cases can be classed, it being almost needless to say that the author passed through virtually every experience that may ever confront the obstetrician.

Placenta Prævia.—Doctor Ford witnessed six cases of placenta prævia, three in his own practice and three in consultation. Three of them were cases of central implantation and three of lateral or partial implantation; the latter being more easily disposed of, as is natural. If the os was not sufficiently dilated for the introduction of the hand, the vagina was tamponed until sufficient dilatation had taken place. Then the hand was introduced and podalic version done as rapidly as possible.

Occasionally, in the case of marginal implantation, pregnancy can be prolonged to seven months or over so that, sometimes, it is possible to save the child. However, in cases of central or vicious implantation, once the diagnosis is definitely established, it is necessary to empty the uterus as speedily as possible and without temporizing. In two of these cases, the author succeeded in passing his hand between the rim of the placenta and the uterine wall to do a version. Both mothers recovered, but the infants had been dead for some time. In the third case, a young primipara, where hemorrhage did not appear until the eighth month, it was impossible to pass the hand around the edge of the placenta, and, urgency being great, the author pushed his hand right through the center of the placenta and grasped the feet and succeeded in turning and delivering both infant and placenta together. The result was as gratifying as it was unusual, namely, a live mother and a live child.

Puerperal Eclampsia.—Of this, Doctor Ford had twenty cases. In fifteen, the seizures began before delivery; ceasing twelve times at delivery. In five cases the attacks did not come on until after delivery. Of the total twenty cases, five terminated in death, all of them being prepuerperal, from which the author concludes that postpartum cases are not to be so much dreaded as the antepartum ones. As to treatment in asthenic cases, with full bounding pulse, high temperature, purple countenance, the author advises venesection, removing twenty-five to thirty ounces of blood [It is in these cases when veratrum viride or veratrine is found of value. —Ed.]. In the asthenic cases, however, with feeble pulse, pale countenance and cold extremities, venesection is clearly contraindicated. Where convulsions occur

before delivery, Doctor Ford believes that it is not essential invariably to enter the uterus at once. When labor has already set in and there is nothing to contraindicate it, the process should be expedited. However, if labor has not yet commenced, he would wait, using every possible effort to control the seizures until nature showed symptoms of commencing her work and then assist her in every way. To endeavor to excite a quiescent uterus to contractions may largely add to the trouble. Many cases of threatening convulsions were warded off by appropriate eliminative treatment.

Face Presentations.—This difficult presentation, in which the child can not possibly be born unless the head be unusually small or the pelvis unusually large, occurred in Doctor Ford's practice only eight times. In three of them, he was able to rectify the position either by external manipulations or with the assistance of the forceps. In the others, he had to resort to podalic version.

Arm and Shoulder Presentation occurred ten times. In three instances, the doctor being called upon early could recognize the difficulty before the rupture of the membranes and was able to change the presentation by external manipulation. Where this expedient failed, he resorted to podalic version. One out of the ten infants died.

Prolapse of the Cord.—Six cases, in all of which the child was saved either by holding the cord out of danger with the hand or by fastening it to an elastic catheter and pushing it up out of harm's way until the descending head filled the pelvic outlet.

Occipito - Posterior Presentations.—Twelve cases of this kind proved as a rule very tedious. In a few of them, the presentation could be changed by careful and persistent manipulation. Twice version was done, and in two other instances, where the head was small and the pelvis roomy, forceps delivery was undertaken.

Uterine Hydatids.—This curious phenomenon was noted four times. In two cases, one member of a twin pregnancy was indicated, in the two others there was present a single shapeless mass of unorganized tissue, the socalled hydatiform mole.

Sudden Death.—Doctor Ford was fortunate in experiencing only one case of this terrible accident during confinement. A young Englishwoman, twenty-four years of age, apparently in excellent health, had had a normal pregnancy and was in ordinary labor, a little over two hours. She got out of bed to urinate. The baby was born a few minutes after she returned to bed and the accoucheur was in the act of removing the placenta when she gave a gasp and died a few moments later.

Inversion of the Uterus.—Doctor Ford records one case of complete inversion of the uterus with the placenta still adherent to the fundus. It was caused by traction on the cord by the midwife before his arrival. There was little hemorrhage and replacement was relatively easy.

Fancied Pregnancy has been observed six times. One "pregnant" woman came all the way from Manitoba, bringing with her a trunk full of baby clothes. She returned minus the baby and had no use for the clothes until several years later.

Forceps Cases.—Doctor Ford resorted to the use of forceps in nearly two hundred cases and would not feel safe to go to a case any distance from home without them. More recently, his use of this powerful instrument was much less frequent, largely owing to the use of pituitary extract. Of this remedy, he advises to give smaller doses than ordinarily recommended, that is, only ½ mil, repeating in twenty minutes or half an hour, if necessary. This repetition, though, is not called for often. In these doses, no injurious effects upon the infant were observed. Pituitary extract proved especially useful in abortion cases at three or four months when it often is very difficult to empty the uterus of the small placenta or portions of membranes.

Doctor Ford concludes his interesting account by passing on a bit of advice received, when beginning his practice, from the late Doctor Hodder, of Toronto. Learn, said he, to distinguish between promptness and hurry; always be prompt, never be in a hurry. And, furthermore, make it a rule never to leave the lying-in-room until one hour after the last stage of the confinement is happily terminated. Better to miss a dozen calls than to lose one patient. By the strict observance of this rule, he has saved life in several instances.

PHYSICIANS' BUSINESS METHODS

In the following, we present some ideas submitted to us by a friend of ours, an expert accountant and treasurer of a large manufacturing concern, regarding the poli-

cies that he declares would be incorporated in his business if he were a practicing physician. The views expressed in this article are interesting and, without a doubt, sound. Nevertheless, the objection may be raised that the *business* side of the physician's work can not be insisted upon as strongly as is the case in other affairs where the transactions are purely those of barter.

It is true that, even in the relations of physicians and patients, there is a legitimate "barter" in so far as services are given representing value for which suitable compensation is expected and should be given. However, it happens very often that the payment of compensation is entirely out of the patient's power.

In such a case, shall the practitioner refuse to officiate and refer his indigent client to dispensaries or other charitable institutions? The solution of that question depends, we believe, entirely on circumstances. There are certain patients unable to remunerate their physician for his services in dollars and cents who still are deserving of his best efforts and whom it is good policy, moreover, to serve, for the reason that he will receive returns indirectly through the manifestation of their good will with their friends, and in other ways. Of course, there are other "poor" who either can not or will not pay their bills for services received or who are too careless to make an effort. They may be utterly shiftless, worthless or clearly dishonest. Owing a good-sized bill to a certain physician and thereby feeling under an obligation which they have no intention of liquidating, they feel a certain resentment against that physician. They will talk among their friends to his discredit, belittle his efforts and injure him in every way they can. Such people had better not be accepted as patients by any physician, but should be referred to charitable institutions where they receive necessary assistance with the clear understanding that it is charity.

The business aspects of the physician's work present problems and questions that are difficult to solve. No doubt, as a rule, physicians are too lenient, not to say too careless, in money matters. Quite certainly, those patients who are in a position to pay for value received should be given to understand that the physician's accounts must be paid as promptly as those of dealers in commodities. It is time that physicians should draw the lines more stringently as regards the credit that they extend and the extent to which they "forgive their debtors."

However, we will let our friend take the floor. He says:

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From numerous interviews with doctors in various locations throughout the United States, I am under the impression that most physicians, through fear of losing practice, do not make the effort they should to collect their accounts.

In the commercial field, there is a prevailing custom as to terms on merchandise sales, and, when the purchaser fails to meet these terms, he is naturally followed up regularly for collection. My belief is, that this same procedure, by concerted effort on the part of physicians, can be made the custom in the medical field. Is it not true that many physicians, through their fear of losing patients, neglect their collections and, often times, never realize the financial return from their efforts that is justly theirs?

Does it not seem reasonable to place a certain credit limit upon the clients of doctors just the same as upon the commercial debtor and, when that credit limit is reached, to ask for a remittance? If the debtor takes offense and calls in some other physician, the loss financially is less to the original creditor. Further, if the medical profession as a whole would cooperate along this line, it would be but a question of time until the laity would realize and appreciate the necessity of paying their physicians' bills.

Another point: as a business stimulus, instead of giving the patient a prescription, I would endeavor to make it a rule to supply him with sufficient medicine to last until I deemed it necessary for a personal examination, which would mean an additional office call, at the end of that time, and perhaps more medicine or a change in medicine.

Further: I would be inclined to collect for the medicines at the time of delivery, not expecting to make an enormous profit on them but to at least reimburse myself for the expense of the medicine and containers.

It would undoubtedly be necessary, often times, to write prescriptions. It has al-

ways seemed to me that, by prescribing, the physician is not only treating his patient; for, many times, several persons in the vicinity will be using the same medicine for similar ailments or an imaginary ailment, by having the doctor's prescription refilled after it has been recommended to them by his patient.

To refrain from writing prescriptions, might in a way perhaps work some hardship on the druggist; still, when the doctor has been given a better opportunity of serving his patient and has cured him, the druggist will probably sell more soda water and cigars.

At the present time, it is not uncommon to hear a physician say that, according to his books, he has had a practice of, say, ten to fifteen thousand dollars, when, according to his cash book, collections amount to only 25 to 40 percent of that sum. In commercial fields, losses exceeding 1½ to 2 per cent are looked upon as indicating unusually poor methods of handling credits and collections.

I would not expect, in practicing medicine, to handle the business on this basis; of course, admitting that it is only natural and perhaps often necessary to do considerable work where no returns whatever are expected. In such cases, however, I would not attempt to fool myself as to the volume of business by making a charge; rather, I would make the entry as charity, where it properly belongs, and thereby reduce my volume of losses. To make an entry for service of this kind, knowing in advance that there is no possibility of realizing, thereby inflating the total volume of business done, is just about like forgetting to count the strokes in a game of golf; you are really fooling no one but yourself. However, I do not wish to intimate that, were I a practicing physician, I would not be ready and willing to do my full share of this charity work.

I have presented these few ideas, not in the form of criticism, not with the idea of promoting or defeating any business man, but purely with the idea of assisting the practicing physician that he may be in a position to assist himself and thereby be positioned to protect his credits by promptly paying his obligations and saving his cash discount by him so doing. A 2-percent cash discount taken twelve times per year on all monthly purchases means 24 percent per annum on your monthly average purchase.

In the associations of credit men, it is common talk that the poorest credits are attorneys and physicians. Many attorneys, I think, have this same fault of not following up collections because of their fear of losing their clientele. If these fraternities would follow the suggestions outlined, they would in a comparatively short time be in position to dissipate the apparently prevailing idea.

G. O. Brown.

Chicago, Ill.

A GOOD OPENING

I have here in Farmington an opening for a man competent to do major surgery. It is not a large field, but is suited to a man who will do a general practice as well. One must do both in this field. This is just the place for a man with a tuberculous member of his family. We have the finest climate in New Mexico and one of the prettiest all-American towns in the state. Seven churches, several lodges, electric lights, telephone, hydrant water, Denver and Rio Grande Railway, lawns, roses, fine shade trees, high school, cement side walks, etc. This is a great fruit raising section; also alfalfa, corn, grain, garden stuff, livestock, etc. Billions of tons of coal in the ground and good oil indications in well now being drilled. Wish to retire on account of age and desire to conserve my physical powers.

It will take from $800.00 to $1,000 to buy my drugs, furniture, instruments, and such. No charge for practice.

Walter W. Smith.

Farmington, N. M.

SHALL THE MEDICAL PROFESSION MANAGE ITS OWN AFFAIRS?

Every doctor in the United States has a duty to perform in view of the attempts that will be made in the near future in various states to pass legislation looking towards compulsory health insurance or other forms of meddling in the affairs of the profession, not only to our own detriment but to that of the public at large. Such legislation is an unwarranted interference with the liberty of the individual. In saying this, we do not forget that civilization requires to a degree the subordination of individual rights to the public good; but, when that limit is overstepped, the tyranny of a majority may become more intolerable than that of an absolute monarch. Doctors have been too indifferent

and easy-going in the matter of legislation. In consequence, we have seen too many attempts to secure laws not expressing the ideas of the profession but of those of amateur reformers, "uplift" cranks, parlor socialists, people who have their own ends to serve, and are looking for juicy plums in the form of fat jobs. If we were to have a national Department of Health, what a lot of medical politicians could be taken care of!

The arguments against socialistic legislation regarding health matters have been so well set forth by others, that we need not concern ourselves with that phase of the matter just now. It is more to the point to consider the means that can best be employed to make certain that our side of the subject can be efficiently presented to our lawmakers at the proper time.

It goes without saying that organized effort will be required. Probably, we have organizations enough—the need is chiefly to make them more comprehensive and more effective. There are still too many practicing physicians outside of the local medical societies. We should not forget that "the burden and heat of the day" are borne chiefly by the family doctor, in both city and country. These are the men who come most closely in touch with the people. For this reason, and also because of their numbers, their opinions and desires should carry much weight when legislation is to be considered. Every reader of this journal can help by urging those who have not joined the local society to do so, and to attend the meetings. Then, when legislation is pending, if every doctor in the land would write a short letter to his representative and senator, expressing his views—who can say how great the influence would be? Remember, a short letter is much more likely to be read than a long one.

How many doctors can give the names of their senators and representatives? If we were to ask the question of a hundred medical men taken at random, we might be surprised at the answers. Too many feel that they have not the time for such matters; it is so much easier to "let George do it." In England, today, a good many doctors are sorry they left it to "George", and we do not want to find ourselves in the same position some fine morning. It is easier to prevent bad laws than to get them repealed.

To the outsider, we say: Come in and give us the benefit of your help. Perhaps you have been disgusted with your experience in medical societies, in the past, when you have seen a few "windbags" monopolize the time of the meetings. We can sympathize with you. We, too, have been present when a few who had nothing to say, said it at great length most tediously, sending everyone else home disgusted. However, those evils are remediable. Come in and help remedy them, and get your revenge on the "windbags."

To the medical societies we would suggest:

1. A vigorous campaign to get the outsiders in. Many of them would join if canvassed by some active member.

2. When a bad bill is introduced into the legislature, notify every doctor in your district, whether a member or not, and invite his cooperation.

3. In selecting committees to watch our interests in the legislature, pick men of tact. To arouse a lawbreaker's antagonism, is a poor way to convince him.

4. We believe that, if we all do our part, if we stand together and if we show the legislators that we desire the welfare of the community as well as our own, we have a chance of success. The thing most to be feared is apathy in our own ranks.

WM. RITTENHOUSE.

Chicago, Ill.

A CORRECTION.

In CLINICAL MEDICINE for December last, on page 819, column 2, line 7 from the bottom of the first article, Heil is said to have rated acriflavine as germicidally eight hundred times stronger than phenol. This author's name was misspelled and should have been Heyl, Doctor George Heyl's communication having appeared in the *Urologic and Cutaneous Review,* for 1920, page 320.

THE OLD DOCTOR OF THE FUTURE.

I have read carefully, all that has appeared in your current number [December, 1920.], in regard to our profession; its actual position and the outlook for it. Allow me to add a few words, from my viewpoint. Somehow, I feel to-day, that I could still be very useful to many, not only to my colleagues but to patients themselves, provided I were permitted to be. I find alas, that this is not the judgement of my

colleagues. At least, I assume this, because my opinion is, now, rarely asked.

Of course, the time is past for my being, or wishing to be, an active practitioner. My health and strength would no longer stand the strain. Besides, I do not wish it. On the other hand, I am quite frequently made aware of what goes on about me; of the treatments adopted, of the operations performed. Are they wise? Frequently they are; more frequently, they are not.

No longer are doctors willing to be guided by past experience and wide practical knowledge. One is asked merely to bow one's head to the later findings and to believe that, to respect what has gone before, betrays ignorance.

Now then, as one grows old, it is true that one's mental faculties, in some particulars, show the lapse of years and are no longer what they are in younger people; however, this is not invariably, true. The French have a very wise proverb:—It is *"Si jeunesse savait, si vieillesse pouvait."* Translated, it means, if youth knew, if age could. To me, the old physician of the future who is most to be desired is the man of all-around knowledge and sympathy He is, or has become so, by having had to do, at one time or another, with almost every form of human ailment and knows what can be done to help or relieve, and what can not.

Let such a man, then, always preside at every consultation of moment, whether it be with the family adviser of a younger period, or with him and the specialist who has been called in to give his later and more expert judgment. From such a consultation, nothing but good could result to all concerned—both doctors and patients. Of course, at times, the case may be one of those rare, exceptional ones and the older physician may stand aside and merely say, do what is rational to promote the comfort of the patient, but do not attempt a socalled cure which will often result in greater disability or even death.

Again, for the usual cases; for those that have been seen and cared for, time and time again. Let common sense, knowledge, integrity of purpose, character,—doing Christ's bidding of doing unto others, as we would have them do to us, be all that is required. Then, and then only, useless, new and relatively unknown and untried drugs, would not be given and foolish, hazardous, wrong operations would not be done, merely for the glory of the surgeon, or for the large pecuniary return, which is what almost every operation outside of hospitals brings and which today, alas, is simply bewildering to old-time physicians.

May I hope and believe, that these few thoughts may be of real service to those who seek the true light?

BEVERLEY ROBINSON.

New York City.

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It has been said that action was a prerogative of the young while the old should be approached for counsel. This was typified especially in Sparta where the old men were honored above all others, their counsel and advice being not only listened to respectfully but also acted upon. It is enforced today in Japan where the "elder statesmen" wield a not inconsiderable power.

These United States of ours are essentially a country of the young and vigorous. Ordinarily, in the ruthless, inconsiderate struggle for existence, those who can do, and can accomplish, things are respected in proportion to their results, while those who, through force of age, or of feeble health, have been obliged to retire, are all too often forgotten and shelved. That is a pity, In matters medical, especially, the old practitioner possessing the information and knowledge of days gone by, ripened and matured by experience and revised and corrected by more recent study, easily has a clearer and more correct viewpoint than has the young enthusiast who has observed certain things in the laboratory or has to his credit a few brilliant operations and who, with the customary arrogance of youth, thinks he owns the world.

A part of wisdom is, undoubtedly, to defer respectfully to those who have passed through a life-time of service to the sick, whose wide and diversified experience entitles them to express positive opinions. There are many men who are listened to with deference even when their heads are covered with the snow of many years, whose opinions are received as of authority and are sought by their younger pupils eagerly. Such a one was Virchow who was an authority in many matters until his death; such a one was the late Abraham Jacobi whose counsel was treasured even when he had passed the four-score mark.

To these men also belongs Dr. Beverley Robinson whose apprenticeship was served among the great clinicians of the days of

Trousseau and after Trousseau, in France, and with the Flints, father and son, and their peers in the last quarter of the nineteenth century, in this country. We should be sorry to think that Doctor Robinson's implied plaint is justified. We can not believe that a man of such great and wonderful knowledge, of such deep wisdom is neglected by those who might be privileged to benefit from his counsel. Indeed, we feel certain that Doctor Robinson's advice will be sought and received gratefully as long as he is willing to give it.—Ed.]

SCIENTIFIC FOOD PREPARATION: IDEAL DIET AND VARIATION

Molière pictures an eccentric old doctor who always went to the kitchen and embraced the cook after a visit to a wealthy client, upon whose patronage he recognized the services of that functionary being dependent. The modern doctor has been so faithful in following the admonition to "Heal the sick" that he has not had much time to look for the real source of human ailments. However, preventive medicine has lately been developing so fast that the fundamental physical cause of all human ailments could not long remain undiscovered, or unrecognized.

Among the gems of wisdom used as copy-book lines in the series of Marcus Ward & Co., of Belfast and London, about 1870, was, "Diet cures more than the doctor", clearly indicating that diet was commonly regarded as outside the province of the physician. About that time, the foundations of the science of infant feeding were being laid, which has done more to raise the average length of life than all other means. This has been the work of the family physician, and in the latest issue of Clinical Medicine (August, 1920), the introduction of yeast, which may properly be called the universal food-medicine, is properly claimed for the medical profession.

We have been slow to recognize the fundamental importance of diet as a means of prevention and cure, but we are making up for lost time now. At the last annual meeting of the British Medical Association, the statement of a well-known English physician was generally concurred in, that "all diseases have their origin in diet," and Dr. William Mayhew, well known American surgeon, insisted that the proper treatment of gastric ulcer is principally by diet. Now, an American physician who long occupied what may be regarded as the foremost didactic position in the country, in dietetics, has formulated "an ideal diet" for the adult, which may be regarded as the first step toward the establishment of such a science of feeding as we have for the infant and as I have advocated and practiced in the feeding of children for many years, with results that will compare well with the record of scientific infant feeding, so far as these results are demonstrable.

Food preparation, including food for the sick, has consisted almost entirely in the indiscriminate mixing and cooking of foods with reference only to attractiveness by taste and appearance and with regard to avoidance of immediate distress. Now, we witness the discovery that bad food combination and foolish food selection is the cause of ninety percent of all ailments; the elimination, largely, of incompatibility; the determination of a dietary that shall best supply all the elements of nutriton with the least waste of vitality for digestion and elimination, yet without disregarding palatability or economic considerations.

The science of infant feeding is based upon the reduction of the substitutes for the infant's natural food to the closest possible imitation of that natural food. It has long been recognized that the ration should be changed as little as possible, but the serious effects of such variation were first fully recognized by the medical faculty of Rome, whose discovery was generally announced in 1913, that not so much milk as variation in feeding is the fundamental cause of high infant mortality—five years after the publication of a work of mine in which the pathology of variation was first presented.

Commenting upon the announcement of the discovery of the effects of variation in the feeding of infants, Dr. Thomas G. Atkinson, professor of the disease of infants in the Chicago College of Physicians and Surgeons, in an article in Clinical Medicine for July, 1913, said:

"Any marked change, often even a slight change, in the quality of the food quickly brings about such a disturbance in the character, distribution and behavior of the

intestinal bacteria, that they cease to be normal, and many of them become pathogenic." Doctor Atkinson quotes Cooley, a well known investigator, as saying: "Species of bacteria which before were benign become highly malignant; normal types, while retaining their physiologic character, lose their powers of resisting invasion by pathogenic types, or, they disappear and are replaced by pathogenic germs."

Now, it is impossible that variation should be of prime importance in infant feeding and less important in the feeding of children; as I have proved by experience.

The importance of variation has been confirmed by the work of Bishop in arteriosclerosis. His treatment is now "a few-protein diet", a diet, that is, avoiding excessive variation.

Practically all cases of extreme longevity quoted by Metchnikoff in his book, "Prolongation of Life," had lived during most of their lives on two or three articles of food, bread and milk in most cases. The English classic case, that of "Old Parr," whom Harvey autopsied after his death, at 152, lived upon virtually two foods—"coarse bread, small beer, whey and cheese." Dr. Porter's ideal diet reduces incompatibility to a reasonable minimum.

I agree with Dr. Porter that much harm is done by fruits and by potatoes, because of their extreme incompatibility with other foods; but beef, which he includes, is incompatible with milk, which he includes, properly, of course.

Scientific Food preparation will be generally applied only in the feeding of infants, in the feeding of children and of the sick; and in these cases ideal diets should be used. We shall, therefore, first consider such ideal diets and then the proper methods of preparing them.

THOMAS J. ALLEN.

Eureka Springs, Ark.

THE TREATMENT OF CANCER

In writing this paper on cancer, I do not intend to make any startling statements regarding a specific cure for this terrible and fast-increasing disease. We are told that over fifty thousand people die every year, in the United States, from cancer; one man out of every twenty and one woman out of every twelve, after the age of thirty-five.

The mortality from cancer in England has increased over four times in the last fifty years. Although scientists have experimented for years trying to find the cause and some specific cure, so far, their efforts have been unavailing.

Our present methods of living and eating are responsible for the great increase in cancer; worry with its constant drain on the system, the excessive use of alcoholics, tobacco, strong coffee, tea, and rich foods. Many cancer victims are great meat eaters, especially of beef and pork. In some countries, where vegetables are used as the principal food and very little meat is taken, cancer is practically unknown. Most cancer patients have ravenous appetites, which is probably due to one of two things: Either the drain upon the system in the effort to repair the excessive waste, or the stimulating effect of the poisons upon the nerve centers. The fact that some underlying disease or injury is so often found associated in those suffering from cancer, makes us think that cancer is more often the effect of some wrong in the system than the cause. Traumatism is given as the primary cause in 90 percent of the cases which have come under my observation.

Having spent a great deal of time studying and treating all forms of cancer, in the last nine years, I have observed some few things: first, to treat all suspicious looking growths, no matter how small, just as soon as possible, regardless of the amount of pain they may be causing. For, pain is not a prominent symptom in the majority of cases until the disease is rather far advanced. The absence of pain keeps many people from consulting a physician because they will not believe that they can have cancer without experiencing pain. The greatest mistake is made by people and, often, upon the advice of their physician, by waiting to see what the growth is going to amount to. Many a curable case has gone into the incurable stage when prompt treatment would have relieved them. Procrastination is the thief of time and delays are dangerous.

My observation leads me to believe that cancer is not a true blood disease but is carried and transmitted from one part of the body to another through the lymphatic sys-

tem. The fact that the auxiliary, cervical, supraclavicular and mediastinal glands are often found involved in carcinoma of the breast tends to bear out this statement.

I do not believe that cancer is a germ disease, because no specific microorganisms have so far been found or isolated. The ordinary germicides, antiseptics, antitoxins, serums and vaccines so far tried have not produced corresponding favorable results as they have in many known germ diseases. Cancer tissues have been transplanted into healthy individuals without producing any signs of cancer. I have often had small scratches on my hands while caring for cancer patients and have never yet experienced any infection. A man may have cancer on one lip, which comes in contact with the other lip many times a day, and still cancer seldom develops on the other lip.

As to the treatment, each case must be treated according to individual symptoms. Any wrong, or disease, must be cured or corrected before the cancer can be cured and stay cured. Thirty percent of the cases I have treated or examined have had X-Ray treatment, over forty percent have had surgical assistance and many have been operated upon from one to four times.

The actual cautery or electric needle is sometimes used on smaller growths, though it would hardly do for very large ones, as it takes too long and is too painful to destroy the tissues deeply enough to get at the bottom of the growth. The permament cure of cancer depends upon removing every vestige of diseased tissue; for, any cells left are sure to cause a recurrence in a few weeks, or months, at most. A surgeon can only remove what he can see and feel and, as the cancer cells are often scattered beyond the main tumor or growth, the knife fails to remove all of them. Indeed, the disease is usually made more active.

Constipation, which is found in 90 percent of all cases, must first be corrected and the diet regulated. The use of cholagogs and saline cathartics is indicated first. Such drugs as phytolacca, thuja, strychnine, yellowdock, baptisia and many other remedies will be indicated during the course of treatment. For the local treatment, any good escharotic as, monocholoracetic acid, chromic acid, pastes of arsenic, sanguinaria or chloride of zinc may be used.

For several years past, I have treated large growths by first removing them with the knife, and all adjacent glands and tissues that might be affected, and then going over the entire surface with an escharotic. Of course, this causes prolonged draining and healing by second intention, but, the after results are so gratifying that I feel justified in treating them that way.

Over seventy-five percent of the cases I have treated in the last nine years are cured and still living, which surely is a fair showing.

M. B. STINE.

Des Moines, Ia.

THAT "PROBLEM IN ECONOMICS"

I notice that Doctor Crompton (CLIN. MED., Nov., p. 759) refers to a letter in the September issue (page 581) where a medical man wishes to discontinue his subscription owing to the H. C. L. and his financial difficulties.

In reference to that article, in the September issue, I am entirely at sea when a statement is made that from $600 to $800 a month is earned and salted down in the bank at the rate of over $4,000 in six months; and that in a country district.

I ought to know what work a man does in a country practice, but, I confess I do not quite grasp how $800 can be earned in one month. At any rate, one banking four thousand in six months could surely buy a journal for a year, especially when he gets his butter and fresh eggs so easily. I am of the opinion that I could guarantee that several doctors of my acquaintance will each hand over the price of a medical journal for a clear explanation of how they each can be able to bank four thousand in half a year.

"POOR CANUCK."

[Our "Poor Canuck" colleague is no more "at sea" as to the How? of that hard-times cry than are we ourselves. We can not understand how any man can feel the cruel pinch of poverty when he banks over $4,000 in six months, besides having earned about $100 additional every month, that went for groceries and other household expenses. No rent to pay; no butter, eggs, milk to buy; all garden truck in return for

the work done, but, entailing no monetary outlay. Lots of medical men of our acquaintance would be willing to be "poor" at that rate. However, we hope that even that economic problem will be solved to advantage.—Ed.]

THE CENTENARY OF ST. LOUIS UNIVERSITY

St. Louis University, the oldest seat of learning west of the Mississippi River, has for the first time in its more than a century of endeavor made a public appeal for funds, the larger portions of which are to be applied to the support of the colleges of Medicine and Dentistry. The University asked its alumni and friends to raise the sum of $3,000,000 as a Centennial Endowment Fund, in commemoration of the one hundredth anniversary of the founding of the institution. The anniversary occurred in 1918, but, because of war conditions existing at that time, with over three thousand of the undergraduates and alumni of the University having answered the call to arms, the celebration was postponed until conditions were more nearly normal. More than fifty percent of the faculty and forty-three percent of the alumni of the Medical Department of the University held commissions in the Army and Navy at the time of the actual centennial date.

St. Louis University holds the distinction of having established, in the great Louisiana Purchase tract, the first colleges of Medicine, Dentistry, Law, and Commerce. Its College of Dentistry is the only one in Missouri of Class "A" rating. Together with the Medical College, it has so expanded that outside aid in the form of an endowment fund is imperative, in order to provide proper salaries for the teaching staff and proper facilities for the two departments. Of the $3,000,000 asked, the income of $1,500,000 is for salaries of the teaching staffs of the two colleges. The cost of a new laboratory for the School of Medicine is estimated at $250,000. New buildings and clinics for the Schools of Medicine and Dentistry will cost an additional $550,000. The remainder of the $3,000,000 will be applied to the needs of the Institute of Law, School of Commerce and Finance, and the College of Arts and Sciences.

It is hoped by the Faculty that old graduates of the Medical and Dental Colleges of the University, who are now scattered all over the world, will appoint themselves into committees of one each to aid their Alma Mater to realize the Centennial Fund.

SUCCESSFUL AUTOTHERAPY

In 1912, I was doing contract work, thirty miles east of Columbos, Tamaulipas, Mexico. One of my patients, the wife of a plantation foreman, a Mrs. S., was suffering from mastitis. In opening the breast, I found only very little pus. This case worried me a great deal, as all local antiseptic treatment was of no avail and general tonic treatment without success. I gave her methylene blue, fluid-extract of echinacea, and calcium sulphide in massive doses; but, again without success. The next graduate physician was at least forty miles away as the crow flies, a good seventy-five miles by wagon road and it was impossible to consult him. Besides, as luck would have it, I was right in the middle of a scarlet-fever epidemic. In the meanwhile, Mrs. S. showed signs of general sepsis. I was seriously considering to amputate the breast, when I remembered that the body, in many instances, manufactured its own vaccines or serums.

Something had to be done and mighty quickly, too. I collected about 2 mils (Cc.) of pus from the infected breast, mixed this with 25 mils (Cc.) of physiological saline solution and filtered this liquid through five layers of filter paper. After boiling the filtrate down to about 5 mils, I injected this hypodermically into the median basilic vein of the patient. The result was simply marvelous. She was virtually well in two weeks.

Now, of course, this case set me to thinking, and, after reading up on the subject (I graduated in 1898 and we had very little of vaccines and serums in college; moreover, my medical library in Mexico was very limited) all I could find, I tried the same treatment of furunculosis.

Mr. H. had at one time seven carbuncles on various parts of his anatomy and in all stages of growth and sizes. The result in this case was also excellent. Since that time, I have used this treatment with uniformly good results. It should be remembered that the reaction after injection, in some cases, is very decided; but, if a fellow is up against it and does not know what to do, it is better to do something than nothing. As an old German verb says: *"In der Not frisst der Teufel Fliegen!"* (When in need, the devil will eat flies.)

Alfred E. Staps.

Chicago, Illinois.

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[In his successful treatment, Doctor Staps followed the ideas promulgated some years ago especially by Dr. C. H. Duncan

who has written copiously on the subject. Doctor Staps is to be congratulated on the gratifying results of the method which, in his emergency, constituted actually a method of last resort. However, it is fully established as in accordance with the results of our studies in immunology. Where vaccines, bacterins, serums, can not be obtained, as was the case in the emergency described, one need not hesitate to adopt this method of making one's own biological remedies. Ordinarily, however, we prefer to employ biological that are put out by a well-established laboratory.

We hope that Doctor Staps will tell us more of his experiences in Mexican practice.—Ed.]

"THE ART OF RIGHT LIVING"

I have read with much interest the article upon foods and feeding in the October issue of Clinical Medicine, under the title of "The Art of Right Living" (p. 701-5). As time and space will not admit of a scientific repetition of this teaching, I wish merely to call attention to a few of the most prominent errors. The art referred to in this article is not the art of real living. Real living takes none or very little thought of what you shall eat or wherewith you shall be clothed, but just goes right along and lives, as is illustrated by healthy children and other healthy young animals. Diseases of the human body or of animals of the lower kingdoms of nature are not caused by food or drink.

In my college days, all diseases, or nearly all of them, of the stomach and liver were supposed to be caused by alcohol. Now, the microscope and chemical analysis have revealed to the capable observer that duodenitis, cirrhosis of the liver, and other maladies are not caused by alcohol or by food. In my opinion, if any one should follow the advice given in the following quotation and live a happy life outside of an insane asylum, he would be an able person.

"Do not clog the system by an oversupply of food. Never eat unless hungry. Never force yourself to eat a food because it has been recommended as a health food. Eat only such food as is relished. Be temperate in eating and there will be little cause for worry as to the effect of what you have eaten."

The worry here referred to would be increased very materially in any one who might be induced to try this "tight-rope" method of life. The one element, the one that has received the attention of the eminent and renowned dietitians through the ages, is not referred to, namely, alcohol and its place in the manifold processes of digestion. The wonder mechanism, digestion, enables the body of man to grasp from the sun, the air, the earth, the sky, the elements, oxygen, hydrogen, carbon, nitrogen, also protoplasm, in order to keep the machinery smoothly running. America has been termed a nation of dyspeptics. Why? The "Gone to dinner; back in five minutes" notice found so often on office doors may partially indicate the cause.

J. Cardeen Cooper.

Dover, Delaware.

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[If "real living" were possible, that is to say, that living that takes no thought of what is eaten, as it is done by healthy children and other healthy young animals, no rules of living would be necessary, and none need then be offered. However, as civilized mankind lives, works, and has its being under artificial and, often, unwholesome conditions, it is necessary to cast about for circumstances that will make it possible to live as much as possible free from distress and illness. Thus, rules of right living have their place. Indeed, right living has become an art that may well be acquired.

The hurried eating, to which our correspondent refers, undoubtedly is responsible for much trouble. Yet, we suspect, more on account of the worry, anxiety, and mental stress that is not put aside during hurried eating than because of the latter itself. For, do not "healthy young animals" and older ones, too, gobble and devour their food in a haste entirely unbecoming civilized man in polite society? Yet, they do not have dyspepsia (whatever that may be). At any rate, we are certain that Doctor Butler's advice is well worth following.—Ed.]

VIENNA'S VITAL STATISTICS

With the assistance of the Austrian Government, the American Red Cross Commission in Vienna has compiled statistics which show that, while in 1912 the birth rate was 19.1 per 1,000 and the death rate 15.4, in 1919 these rates were respectively 13.1 and

22.3. The death rate from tuberculosis has doubled, as has that from other infectious diseases.

The following table gives the non-military causes of deaths from 1912 to 1919.

	1912	1913	1914	1915	1916	1917	1918	1919
Diseases of the Respiratory Organs	9,059	9,231	8,946	9,889	10,297	12,644	17,452	12,893
Malnutrition and Debility	3,762	3,599	3,607	3,651	3,628	4,876	4,914	5,066
Communicable diseases	1,268	1,518	1,196	1,777	1,157	792	1,142	814
Heart and circulatory diseases	4,612	4,603	4,824	4,895	5,262	6,398	6,380	6,621
Stomach and intestinal diseases	2,102	2,188	2,046	1,768	1,488	2,602	2,556	2,041
Cancer and new growths	2,869	2,903	2,975	2,891	3,045	2,936	2,614	2,613
Diseases of Brain and Meningitis	1,013	1,034	865	1,072	1,057	988	986	1,033
Tuberculosis of Bones and Glands	708	645	609	651	718	829	905	1,184
Diseases of the Liver	259	243	232	232	260	189	155	134
Diseases of the Kidneys	769	664	728	730	754	860	879	833
Other causes of Death	4,805	4,789	4,805	4,963	5,331	6,810	5,873	5,623
Suicide	742	731	646	533	498	439	429	653
Total deaths in Vienna	22,968	32,148	31,479	33,252	33,495	40,363	44,185	39,513

This table indicates that cancer, kidney and stomach diseases have remained nearly stationary since the last peace year, that diseases of the liver have grown less with the lessening of food, and that contagious diseases have diminished with the closing of means of communication between Vienna and the outside world.

Suicides, contrary to the impression quite generally held in other lands, have not increased. Newspapers in Vienna and other cities have featured the desperation of the middle-classes of Vienna, who, having sold their last valuables to obtain bread, have chosen self-destruction as a quick escape from their misery; of women who, driven to dishonor by want, have killed themselves rather than endure their shame. The number of suicides has not risen, rather there has been a slight decline in the rate. In 1913 there were 2.9 suicides, per thousand inhabitants; in 1919, there were 2.8 suicides per thousand.

VIENNA'S STARVING CHILDREN

The American Relief Administration, preliminary to undertaking its work of giving a noon-meal, six days a week, to the school children of Vienna, made a medical examination of 207,000 of its prospective wards. As a result of this examination, they separated the school children of the Austrian capital into four categories of health, as follows:

Sufficiently nourished	7,000
Undernourished	20,000
Badly undernourished	83,000
Badly undernourished and diseased	97,000

Of 58,849 children examined at Professor von Pirquet's infirmary during 1918, only 4,637 were judged to be of satisfactory health.

These figures give an indication of what the Viennese children have suffered during and since the war. But, only an indication To realize thoroughly what their slow starvation has meant, one must have attended the clinics or have seen the lines of waxy-skinned, too-big-eyed children waiting for their dinners, cup in hand, patient and unmischievous to an extent that hurts you, because they have no surplus of vitality left to create disorder.

The poor and the middle classes of Vienna, who cannot afford to pay the enormous prices at which the rich have been able to obtain what food is smuggled into the city illegally, are all in the same boat. They are all slowly starving. The necessary food minimum to maintain vitality is about 2,000 calories per capita per day. Last spring, Vienna's daily ration, according to a schedule furnished the American Red Cross by Doctor von Pirquet, was as follows:

Bread	6½ ounces	360 calories
Flour	2 ounces	180 calories
Sugar	1 ounces	98 calories
Potatoes	2¼ ounces	60 calories
Fat	⅔ ounce	152 calories
Beef	½ ounce	24 calories
Horse Flesh	⅛ ounce	6 calories
Daily Total	13 ounces	880 calories

The children's hospitals of Vienna, when they appealed last May to the American

Red Cross for edible oils, stated that 70 percent of their cases could be cured and discharged if they could obtain an adequate supply of fats. The American Red Cross, working in conjunction with other relief agencies, has done much to alleviate the suffering, especially among the children. But, there is still so much suffering that what little has been accomplished seems only a drop in the bucket.

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[Therefore, it is up to us to give, and give again, and then give some more. The war is over. It does not matter, in this particular instance, who or what caused it; who perpetrated peculiarly offensive outrages. Nothing matters except that these children and those in Poland, in Germany, and elsewhere, are starving; that they do not have a fair show, that their present suffering must react disastrously upon the next generations.

We, of America, must, as a matter of course, do our share in remedying these terrible conditions. New Year is a good time. Let us help to bring health to these poor youngsters; to feed them suitably and help transforming them into healthy, mischievous children, such as they ought to be.—Ed.]

MATERNAL IMPRESSIONS

A Subsequent Report

My article on "Maternal Impression" (Clin. Med., Dec., 1919, p. 863) aroused an interest not confined to readers of Clinical Medicine, as several letters of inquiry and commendation indicate, from readers of the *Scientific American* and the *New Age*, which found place in their columns for a reproduction of the main points in the article. This prompts me to submit a report of some observations made during the breeding season of my canaries in this year, which ended several months ago.

A short time before the mating season opened, I abandoned part of my plans made for their care and placed the same pairs of birds in the same cages, in the exact locations occupied last year when the phenomenon which I reported occurred.

Seeing an airplane in flight over the city had become quite a common incident by the time nesting began this season and the birds appeared no longer to have fear of them, though, following a warning note from a male, absolute silence would succeed, at times for the period of a full minute.

No other diversion affords me so much of interest and enjoyment as that of an air trip, although, in the present stage of airplane development and use, the fares charged are necessarily so high that my indulgences are not frequent. However, when the nest building which preceded the third clutches of eggs was in progress, a period corresponding to that of last year wherein the deformed chicks developed, I let go and directed my pilot so that we soared near the building in which my office is located and much lower than in usual flights. This point in our course was passed a few minutes earlier than scheduled and the party intending by pre-arrangement to note what effect, if any, the nearness of the plane might have upon the birds, failed to be in the room at the time.

The results of this nesting were as follows:

Hen No. 1 laid five eggs, hatched three, one chick imperfect.

Hen No. 2 laid three eggs, hatched one, deformed.

Hen No. 3 laid four eggs, hatched two, one imperfect. The number of eggs in these clutches was irregular and this was a low percentage of hatch compared with other nestings. Three of the six chicks were imperfect. The one from nest No. 2 had the outstretched wings, joints were anchylosed and the legs sprawled to the rear as had the two chicks mentioned in the preceding report. The other two had imperforate ani. This latter condition has been observed occasionally in past seasons, but, these two were the only instances of this year in a total of 70 chicks hatched.

Here, permit me to digress slightly. It is surprising to note the number of days these chicks live and the growth they obtain before the absorbed poisons begin to show their action, and then how rapidly the little things succumb. Further, canaries act upon the "survival of the fittest" theory and put it into practice for, in several instances, I have known the parents to kill the weaklings before the end of a week from hatching date.

The deformed chick from nest No. 2 was carefully fed and covered and was fully

half grown when ten days old. During the morning of that day. I noticed it was being neglected and the parent birds were planning a new nest. On my return from noon lunch, I found it lying on the bottom of the cage, having a great hole pecked entirely through the spinal column at the base of the skull.

Matings Nos. 1 and 2 nested twice following and No. 3 once after having normal hatches and no cripples.

In connection with this effort, which I can not term a test, a number of questions arise, such as, were the matings of last season the proper birds for use, or should birds not accustomed to the sight of a plane have been used? Was it fair to introduce the intentional flight? However, comparing my carefully kept records of this season with that of last and my memory records of other seasons, I seem to find evidence supporting the maternal impression theory.

W. F. SCHRADER.

Fort Wayne, Ind.

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A more recent report contains the information that Hen No. 1 nested a third time and hatched a clutch of four eggs, since submitting the manuscript. All are healthy chicks. This changes the total to seventy-four birds for this past season and makes the percentage of perfect birds higher.

This nesting is out of the ordinary. A full nesting period had passed before this report was written.

[We are interested in this further report by Doctor Schrader, whose observations throw much light upon the moot problem of maternal impressions. It is to be hoped that still more observations will be reported in succeeding seasons; the experiments being modified in such a manner as to meet the possible objections indicated in the closing paragraph of the report.—ED.]

TREATMENT OF ICTERUS BY SUGAR SOLUTION

To the article on the treatment of icterus by sugar, (this journal, Oct., p. 678) let me tell my story.

The best treatment I have ever found, both for the jaundice condition and the intolerable itching of the skin in these cases, is the free use of hard cider made from ripe apples. The patient will not abuse his privilege but will take small quantities as he needs. It is like a thirsty person drinking water. He knows when he is satisfied. In a few days, the jaundice fades away and the itching abates. It is simple enough to try in your next case.

C. S. COPE.

Tacoma, Washington.

TREATMENT OF MORPHINE-ADDICTION

Autointoxication and its relation to the withdrawal mechanism of drug-addiction disease has proven a very interesting study, as it was pursued by administering to canines graduated ascending doses of morphine and cocaine until phenomenally large doses, five times daily, were tolerated by the animal.

Two canine addicts were given no purgation, the only method used to empty the colon being, the use of high enemas of glycerin and magnesium sulphate, merely to prevent suffering through overdistension, hemmorhoids, and laceration of the mucous membranes of the rectum and anus by impacted near-concretions of accumulated feces. After becoming positively bound to their drug, they were merely reduced until zero was reached and allowed to go through the various phases of withdrawal symptoms; especially noticeable being, diarrhea, colic, coryza and lassitude, followed by constipation, anorexia and disinclination to exert themselves.

Two more dogs were run through the same process of addicting them, but, on the days each reduction was made, a brisk purge, though not cathartic in its severity, was given with drachm-doses of mineral oil every second night and sulphocarbolates in the morning, daily. Small hypodermic injections of adrenalin, 1:1000, were given for a week, three times daily, with a combination of minute doses of atropine and cannaboid, just sufficient daily to produce mydriatic effect but no delirium. These animals passed through the withdrawal period almost comfortably and were eating ravenously within the first week following withdrawal of the final dose of drug. None of the autointoxication symptoms were present and lassitude was hardly noticeable save for seeking darkened places while atropine was administered (photophobia).

According to this course of experiments, it would appear as though the manufacture

of a proteoalkaloid or antibody in the blood of addicts were a doubtful matter and the entire train of withdrawal symptoms were due to autointoxication and acidosis.

R. H. Chilton.

Norfolk, Virginia.

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[The most striking fact in this interesting experiment is, the manifest importance of elimination during the withdrawal period. We are not quite sure that we agree with Doctor Chilton in his conclusion regarding the non-formation of antibodies. To our way of thinking, this point has not been settled and requires further study, probably on serological lines.—Ed.]

APOMORPHINE WRONGLY UNDER THE BAN. TREATMENT OF MALARIA

Since your journal seems to be an open forum for free expression of honest conditions on various professional subjects, it appeals to me especially in my isolated position here. I have just read your November issue with great interest and have something to say with regard to two articles appearing therein, if you will kindly allow me space in your columns for that purpose:

First: The article entitled "The Harrison Law Trap Hole" and the editorial comment thereon appeal to me and I heartily endorse them. I wish to suggest certain amendments to the law, however, which are not mentioned either by Doctor Green or the Editor. Why should apomorphine be covered by the act? True, it is a derivative of the alkaloid morphine; yet, it is in no sense a narcotic nor is it a habit-forming drug. On the other hand, it is an active, quick and powerful emetic, one which the physician may find himself needing urgently for an emergency case (acute poisoning for example); and, still, he could not order it by telephone without a technical violation of the law!

On the other hand, why is not a habit-forming drug and a dangerous narcotic like chloral hydrate covered by the law? Why not include the whole list of coaltar antipyretics, all of them more or less popular "headache cures" and all of them dangerous and more or less habit-forming as well?

Second: Having had thirty-three years of practical experience with malaria, I desire to express an opinion upon Dr. Beverley Robinson's article, "Today's Treatment of Malaria." I am surprised at the doctor's idea that such a valuable remedy as Warburg's Tincture has fallen into disuse. The Panama Canal Zone work (I had the honor of serving two years on the medical staff of the late Gen. Gorgas on the Isthmus) is, I take it, a world's model of modern treatment of malaria, and I do not exaggerate at all when I assure the doctor that, during my two years' service (1908-9), not less than a barrelful of Warburg's was used on the Isthmus. Also, I am quite sure that the perusal of Manson on "Tropical Diseases", a recognized English authority, will convince him that the remedy has not been forgotten there.

However, when the doctor states "There is absolutely nothing equal to it in the treatment of these pernicious fevers formerly known as chagres fever," one who (like myself) has seen thousands of cases, naturally wonders if the doctor has ever seen a case or whether his idea is not based entirely upon theory.

Let me present a clinical picture, one which any physician familiar with pernicious malaria will instantly recognize: A temperature of 104°F. or more, and still soaring; skin and scleræ deeply jaundiced; patient in a semicomatose condition; urine scanty and of a color anywhere from a dark mahogany hue to that of strong coffee. In such a case as this (a very common one where this type of fever is prevalent), would the doctor rely upon Warburg's tincture and compound tincture of cinchona? If he would, let us hope his patients are prepared for the world to come!

That there are objections to quinine hypodermics, no one familiar with their use will deny. But that anyone, knowing the grave and imminent danger of death in such cases, should stop for a moment to consider quinine abscess or any other possible sequelæ, is simply inconceivable. Albeit, in these days of sterile ampules and aseptic precautions, the danger of abscess is minimized. That the two remedies named, together with iron, arsenic, bitter tonics, and so on, are useful both as prophylactics and as a part of the treatment of malarial cachexia, is too well known to need mention. But, for the immediate relief of the acute paroxysm of pernicious malaria, they are about as useful as a sugar pill. When one considers that the plasmodium is in the blood stream and that its action is about as swift in these cases

and almost as lethal as the virus of a rattlesnake, is it justifiable to depend upon the slow absorption of a disordered stomach, when we have a specific which can be administered by intramuscular or intravenous injection?

ROBERT C. MACY.

Nopala, Hidalgo, Mexico.

[The inclusion of apomorphine in the list of morphine derivatives, the prescribing and dispensing of which is limited by the Harrison Narcotic Act, is due to a clerical error through ignorance of the true nature and properties of the drug. Apomorphine should be open to prescription without any restrictions whatever.

As to the suggestion to include chloral hydrate and the coaltar derivative in the list of restricted drugs—we do not believe that such a measure would be wise. Still, we agree that the sale of these drugs over the counter *except* on physician's prescriptions should be prohibited.

Doctor Macy remarks about the treatment of malaria, especially the virulent forms, are exceedingly interesting.—ED.]

NERVOUS AND MENTAL DISEASE IN SOLDIERS AND SAILORS

The U. S. Public Health Service has opened its Marine Hospital in Chicago as a general clearing house for soldiers and sailors residing in the States of Illinois, Wisconsin, and Michigan, who are suffering from nervous and mental diseases. Dr. L. M. Wilbor, surgeon of the Public Health Service, left recently for Chicago to take charge.

Any member of the military or naval forces of the United States of these States, who needs such attention, may come or be sent to the hospital for observation and diagnosis, and will receive, in addition to the services of the group of able Public Health Service surgeons who accompany Dr. Wilbor, the benefit of all the facilities for diagnosis afforded by the vast instrumental resources and expert neuropsychic talent of the great city.

Later, the patient may be returned to his home with or without instructions to report from time to time to the Hospital for further observation; or he may be transferred to such other hospital as may seem best suited to his condition. Before returning a patient to his home, its conditions and their probable effect upon him will be carefully considered.

Doctor Wilbor has a distinguished record, particularly in New York, where he served in both private and State hospitals, and in the well-known New York Neurological Institute.

The Hospital, which will start with 130 beds, has an allowance of $85,000 for remodeling and other purposes. It will serve as clearing house for the eighth district of the Public Health Service.

SPECIAL TUBERCULOSIS COURSES

The U. S. Public Health Service, which for some time has been making special efforts to facilitate the diagnosis of tuberculosis and especially to bring about its recognition in its very earliest stages, has recently opened mobile training courses for the purpose, in Illinois, Wisconsin, Michigan, and Washington. Similar courses have already been given in Texas, Louisiana, Missouri, Virginia, West Virginia, Maryland, and Pennsylvania.

These courses, which last seven days and are very intensive, are at present open only to physicians attached to the Public Health Service; but, after all of these in the various States have completed the course, it is hoped that it may be possible to hold similar courses for the benefit of other physicians who may desire to attend.

The instruction is given by recognized experts in the diagnosis of pulmonary tuberculosis, and is supplemented by the showing of a remarkable motion picture, in six reels, which minutely illustrates every phase of the disease.

BENZYL BENZOATE IN THE TREATMENT OF BRONCHIAL ASTHMA

Of the numerous remedial agents introduced to the medical profession in recent years, benzyl benzoate is among the few that are of real usefulness to the practitioner. Acting as it does on smooth muscle fibers, overcoming spasm with resulting relaxation, it is indicated in almost all conditions that are the direct or indirect result of spasmodic contraction of these muscles. Hence, in renal or in gallstone colic, in dysmenorrhea, in bronchial asthma, in arterial spasm; indeed, even in whooping

cough, its action at times is most gratifying. In this particular article, however, we are chiefly concerned with its use in bronchial asthma.

The therapeutic measures for the treatment of asthma are as numerous as the theories concerning its etiology. On the theory that it is the result of a protein sensitization, many cases are relieved and, some claim, cured by determining the particular protein to which the asthmatic is sensitive; desensitizing him by administering the offending protein in increasing doses.

On the theory that asthma is caused by pyloric insufficiency, Knapp treats his cases by overcoming that condition. The nose specialist cures his cases by removing almost everything in his operative field. However, most of those who have had a fairly large clinical experience in the treatment of this condition know that many sufferers are not relieved, let alone cured by any one or all of those means. We are, therefore, always anxious and willing to experiment with any new remedy that offers the possibility of alleviating the suffering of those afflicted with this troublesome malady.

It would be folly to claim that benzyl benzoate will relieve every case of asthma. But, it will and does give satisfactory results in many cases. It should be given in large doses and at frequent intervals. I have not seen any ill effects as a result of an overdose. Thirty to 60 drops of the 20-percent alcoholic solution, every three to four hours, is about the usual dose. In a recent paper, I reported on the use of this drug in a case of bronchial asthma by hypodermic injection. Relief was thus obtained in a case where most other means, including benzyl benzoate by oral administration had failed. I used the 20-percent alcoholic solution in 25 minim doses, every four hours. There was much local irritation at the site of injection, as, slight swelling, redness and some pain. All these subsided, however, soon after the injection. At no time were these local signs of consequence.

In a recent paper by Doctor David Macht, to whom credit is due for bringing this drug out, he speaks of its use in certain types of circulatory disturbances. My experience along these lines, I believe, is worthy of mention. Mrs. K., 56 years of age, was referred to me for treatment. For several years, she had been suffering with dyspnea and palpitation at the slightest exertion, choking sensations and thumping headaches. These headaches gradually grew worse so that she rarely was free from them. She was fairly well nourished, her face and all mucous membranes were markedly congested; blood examination showed a red-cell count of 6,500,000; hemoglobin, 106%; Wassermann, negative. Urine was negative. Blood pressure; systolic, 190; diastolic, 160. The heart was enlarged but otherwise negative. Diet, rest and administration of nitroglycerine and nitrites gave no relief. I put her on benzyl benzoate, 30 drops every four hours, by mouth. She obtained almost complete relief in several days. It is significant to note that her blood pressure was but slightly reduced.

B. Woloshin.

New York City.

ACRIFLAVINE IN GONORRHEA

The following item is reprinted from the November, 1920, issue of the *Social Hygiene Bulletin,* published by the American Social Hygiene Association:

"Among the experiments which various universities are carrying on with the aid of grants from the United States Interdepartmental Board, it is difficult to select the most important, says a foremost genitourinary specialist. At the present time, many doctors are particularly interested in the observations made by Dr. Edwin G. Davis, director of the pathological laboratory of the University of Nebraska, on the use of acriflavine in the treatment of gonorrhea.

"Acriflavine, technically known as diaminomethyl-acridinium chloride, is a dye possessing four properties which, according to Doctor Davis, 'justify its clinical trial in the treatment of gonorrheal urethritis: first, its antiseptic potency, which is increased by the presence of serum; second, its nontoxicity when given intravenously in comparatively large doses; third, its nonirritating effects on the mucous membranes though used in concentration many times that necessary for antiseptic action; fourth, its power of rapid diffusibility through the tissues.'

"One difficulty encountered in the treatment of gonorrhea has been in the destruction of the gonococcus in living tissues, and though Doctor Davis states that 'no extravagant claims are made for the efficiency of acriflavine in the treatment of gonorrhea,' he also says that his experiments seem to justify the statement that results from its use are distinctly better than those with the organic silver salts in common use.

"Doctor Davis reports that results of his special investigation of relative efficiencies will be published shortly."

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE BUTLER, A. M., M D.

The Art of Right Living

Common-Sense Comments on Health, Happiness and Longevity

[*Cont. from November,* 1920, *issue p.* 772]

21. Hardening The Body

BEGINNING with personal cleanliness, the whole body should be bathed daily with cool or tepid water, and then rubbed thoroughly dry with a rough towel. The least one can do, with any attention to cleanliness or health is, to sponge the face, chest, and back with water, and dry-rub the rest of the body at least once every day. For a thorough wash of the hands, use warm water, and, before soaping them, steep them well in the water for a minute or two, rubbing them a while, then use soap and a nail brush. End by holding the hands under a tap of cold water and give them a shower bath, it is refreshing and strengthening to the fingers; or dip them into cold water, and rub them briskly.

The first thing in the morning, the following procedure is beneficial. Immerse the feet in a foot bath of cold water, enough to cover the ankles. Begin, according as the reaction of the individual is weaker or stronger, with water at 77°, or even at 81° and 86° Fahrenheit, and use colder water gradually, in the course of weeks, down to 68° F., only exceptionally to a lower temperature. In all cases, the cold foot-bath, lasting only a few seconds must be followed by quickly warming the feet. This can be done in a few minutes by returning to the warm bed; it is not necessary to rub them; the more quickly the bed is regained, the easier it will be to bear the cold foot-bath. Only when the temperature is too low, will it take more than ten minutes before they get well warmed.

To harden the skin of the whole body, I recommend the following procedure: First, wash or spray the body with cold water or the temperature recommended for foot bath. The throat, chest and back of neck, especially, should be treated. Such an ablution, together with the foot bath will take only a few minutes. A few moments only should be given to douching the body. This should be followed by vigorous rubbing with a coarse towel.

Never sit down to breakfast without first going out into the open air for a while. A brisk walk taken in the early morning air, half an hour before breakfast, especially when accompanied by deep breathing, is a wonderful health promoter. The expansion of the lungs, quickening of the circulation and oxygenation of the blood, gives one a keen appetite for breakfast, and the man who can eat a good breakfast with relish has something to sustain him in his work, he is more fit to cope with difficulties than the unfed man, the man who breaks his fast with nothing more substantial than a roll and coffee. Aerate and redistribute your blood by means of a walk before breakfast, then you will be able to eat and digest that meal without trouble. Such a preparation for the day's work is invaluable.

A good general massage, with resistive exercises twice a week will prove a great benefit in making one strong and vigorous.

Sports, in moderation, improve our physical condition; but, they may prove disastrous if reason be not exercised and they are indulged in to excess. The advantages of the various kinds of sport in hardening the body are, that with them can be combined the very important agencies of fresh

air and sunshine. No better example of what training and a resolute purpose can do towards hardening the body, can be found than in the history of Theodore Roosevelt. His advice to the American boy is as applicable to the American man as it is to the boy. He says of the latter: "He must work hard and play hard. He must be clean-minded and clean-lived.— In life, as in a football game, the principle to follow is: Hit the line hard; don't foul and don't shirk but hit the line hard."

Learn How To Live.

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While we are all deadly afraid of microbes, bacteria, etc., we live in such a way that our bodies become deficient in resisting power to the same germs; and, when they are present, we expect in some miraculous manner to have them expelled.

While we all want to enjoy life, with all its comforts, pleasures, and happiness, we are apt to forget that upon health these all depend, and that health is the vital principle of bliss, and exercise is health.

If you make life a battle, then enter the fray with weak and trembling limbs, you are half vanquished already. Go into training. Get into first-class condition, have courage and you'll win!

It is queer that, while all persons have a horror of disease, they are so long in finding out that the only sure way of avoiding disease is, by keeping every organ in the body perfectly well.

To the brave head and strong hand, the capacious lungs and vigorous frame, fall, and always fall the heavy burdens; and, where the heavy burdens fall, the great prizes fall, too.

Our dependence upon surrounding circumstances increases with our physical weakness, and on the other hand, in health there is liberty. Work for health.

Most of the evils that befall us in this world, including premature old age and early death, are solely due to our own negligence.

Don't expect physics and tonics to keep you well if you neglect the laws of health and hygiene.

The glory of a young man is in his strength. Weakness of any kind minimizes, belittles, cripples him.

It is better to be born lucky than rich, but it is in fact better to be born tough than either lucky or rich.

22. Clothing

GOOD clothing is the cheapest whatever the price may be. To be too warmly clad is far safer than to be too thinly clad.

Clothing ought to be suited to the climate. Custom has a great influence in the matter of dress; but, no custom can ever change the nature of things so far as to render the same clothing fit for an inhabitant of Greenland and Panama.

In youth, while the blood is hot and the perspiration free, it is less necessary to cover the body with a great quantity of clothes; but in the middle and decline of life the clothing should be increased. The clothing ought likewise to be suited to the period of the year. Clothing may be warm enough for summer yet be by no means sufficient for winter. The greatest caution, however, is necessary in making these changes. We ought neither to put off our winter clothes too soon, nor to wear our summer ones too long. It would likewise be prudent not to make the change all at once, but to do it gradually. Many "bad colds" are due to imprudence in changing clothes.

Clothes often become hurtful to the wearer by their being made subservient to the purposes of pride and vanity. Even the human shape is often attempted to be mended by dress. All attempts of this nature are highly pernicious. Clothing should be loose about the trunk, and the feet should not suffer by pressure. How a small foot, not of Nature's making, came to be considered genteel I will not pretend to say; certain it is that this notion has made many persons lame. Corns are universal, and this painful excrescence is seldom occasioned by anything but by tight shoes. Corns are not only very troublesome. By rendering people unable to walk, they may likewise be considered as the remote cause of other diseases. In size and figure, the shoe certainly ought to be adapted to the foot. In children, the feet are as well shaped as the hands, and the motion of the toes is as free and easy as that of the fingers; yet, few persons in advanced life are able to make any use of their toes; they are usually squeezed all of a heap by narrow shoes and, often, laid one over another in such a manner as to be rendered incapable of motion. Nor is the high heel less hurtful than the narrow toe. A lady may

seem taller for walking on her tip-toes, but she will never walk well in this manner. It strains her joints, distorts her limbs, makes her stoop, and utterly destroys all her ease and gracefulness of motion.

After the age of thirty-five it may be better to exceed rather than be deficient in clothing. Habit and custom merit great attention. If persons have been accustomed to warm clothing, there will be hazard in sudden changes of every kind. Persons of delicate constitutions, whose powers are weak and whose circulation is poor, are apt to have the perspiration checked by very slight causes. This also happens to invalids whose complaints are thereby much increased; until the constitution has been permanently strengthened and, indeed, hardened, by being gradually habituated to air and exercise. Therefore, they ought rather to exceed than be deficient in the quantity of clothing. Sufficient addition to the clothing ought to be made to it in cold and damp weather so as to protect the body against the sudden and severe impressions of either.

Permeability to air is an important factor in clothing. Permeability favors conduction, and, prima facie, lessens heat-conserving capacity. Contact of air with the skin induces more thorough oxidation of the blood and better elimination of poisonous refuse; hence, it increases heat production and indirectly diminishes heat-loss. If the sole object of nutrition were the production of heat and the chief object of clothing to prevent heat-loss, the subject of best materials for clothing would be much simplified. This, though, is not the case.

Some author has spoken of the "fatal invention of clothes," implying that the human race would be better off if the habit and fashion of wearing apparel had never overtaken the race. Like other extreme views, it is an over-statement of the case.

Learn how to live.

It might be well to arrange a compromise between men and women on the clothes question. If men would wear less heavy things, and women more sensible outfits, we all might live to a greater age and be more comfortable en route to our ultimate destination.

It is almost inconceivable that today, in our civilized nation there are still so many otherwise sensible women who are willing to maim and cripple their feet and suffer pain for the sake of wearing shoes just a little too small, which are, as they imagine falsely, prettier or more fashionable.

The same weight of wool takes up twice as much moisture from the body as linen; but flannel next the skin is not so easily moistened as linen, nor does it favor such rapid evaporation. Thus the non-conducting properties of wool are not the only ones to be considered.

Notwithstanding all the theories of the faddists, woolen is the best material next the skin. But this woolen fabric should be characterized by three things: First, it should be light in weight; second, light in color; and, third, very porous.

One great fault in dress consists in neglecting to properly clothe the upper and lower extremities. Some people do not reflect upon the necessity, while others are too proud to be directed by plain common sense.

To keep the feet always dry and warm is indispensable to good health. No one can be well long whose feet are habitually cold. Warm stockings and a loose-fitting shoe are indispensable.

A hat so tight that it makes a red line on the forehead prevents proper circulation of blood through the scalp. Air, sunshine and moisture are necessary to the cultivation of luxuriant hair.

The most serious violation of hygiene in clothing is wearing garments that restrict respiration. Adjust the clothing to nature's requirements, and cultivate perfect pose and respiration.

Coarse materials radiate heat more rapidly than fine. But it is a popular fallacy that color affects the rapidity of radiation. Dark colors absorb more heat from the sun's rays than light colors.

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23. Less Work For The Doctors

FAR more important and encouraging, as "signs of the times," than any developments in politics or industry is the publicity given in newspapers and magazines to health topics. This means future generations with purer blood, stronger muscles, more courageous brains. And that, in turn, means that all the problems of living—personal, social, political—will be met and taken care

of. No physically robust people was ever enslaved or was ever retrogressive. The first warning of the downfall of the Roman Empire before the Northern races was, the throngs of weaklings in the pestilence-haunted cities of the Mediterranean. Heretofore, in the world's history, civilization has meant decay, because it has meant taking a nation's best from the healthful open-air toil of the country and degenerating it in noisome cities where the very ideals of happiness involved destruction of health. Our civilization of over-abundant food, of automobiles, and of all manner of muscle-decaying machinery would have meant speedy ruin to use of the modern world, had it not been for the progress of sanitary science.

The first fruit of this progress has been, the skepticism regarding the value of drugs and the passing of the family doctor—two developments that are so rapid that we hardly appreciate them as yet. It is a grand advance that we have made in discovering that the body does not wish to get sick, does not accidentally get sick, but, on the contrary, wishes to stay well, and will stay well if its owner is not ignorant or reckless. This discovery will make two great changes in our system of education. The first will be, the teaching of breathing. To breathe properly means health, long life, capacity for work. Yet, today, how few people know how to breathe?

The second great educational change will be, the matter of diet. In this country, and in nearly all of Europe except France, we are still eating the things our forefathers managed to digest when they were toiling and sweating terribly in the open air instead of sitting at office desks.

Nature made the appetite for food keen because she had to deal with conditions in which the food supply was short and hard to reach. If the appetite had not been keen, the animal would have given over the struggle. We ignore the changed conditions, and use Nature's no longer necessary bait as an exercise for stuffing ourselves three times a day and eating between meals. If it weren't that sanitation is much better nowadays, and cooking also, the consequences would be worse than they are. As it is, we suffer a great deal from "rheumatism", "overwork", and "nervous prostration", don't we?

It is pleasant to eat all we want. It is more comfortable to ride in an automobile and breathe lazily in one corner of the lungs, than to walk and take deep breaths. But, it isn't the way to be long-lived and healthy. And it is the way to let the other fellow who breathes and exercises and eats properly, distance us.

The man who wishes to avoid doctors and preserve the full integrity of his functions to a ripe old age must avoid excesses of every description, have plenty of fresh air, a moderate amount of good nutritious food, and must, furthermore, endeavor to employ the higher faculties of his mind somewhat more energetically than is usually customary. Man's destiny as regards the body is to a great extent in his own keeping, and, unless disease is inherited, he will, in all probability, live threescore years and more if the body is properly developed and cared for.

Learn how to live!

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It is better to live in harmony with a few simple clearly defined laws of health, such as, simple food, simple clothing, simple exercise, simple precautions, than to try to live in harmony with public opinion. You should not hesitate to change your methods if you are pretty sure you see a better way.

Simple foods, in moderation, the daily drinking of large quantities of pure water, moderate enjoyable exercise, the daily bath, free elimination through bowels, skin and kidneys, avoidance of overwork, worry, excitement, or unkindliness—these conditions will give practical immunity against all diseases save those arising from injury. Place yourself in harmony with the universal law; make a religious use of life; work while it is yet day; be at once serious and cheerful; know how to repeat with the Apostle: "I have learned, in whatsoever state I am, therewith to be content."

This is a high-pressure age and in trying to "keep up with the procession" many persons do more than they are capable of doing, drain their vital powers and become physical and nervous wrecks.

To yield and yield again to the expression of every emotion, is weak-minded and leads to more weak-mindedness, besides weakening the body and impairing the health generally.

Among the Books

OSLER AND McCRAE: "PRINCIPLES AND PRACTICE OF MEDICINE"

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By The Late Sir William Osler, Bt., M. D., F. R. S. and Thomas McCrae, M. D. Ninth Thoroughly Revised Edition. New York and London: D. Appleton and Company. 1920. Price $7.50.

This latest edition of Osler's "Principles and Practice of Medicine" comes to us as a memorial, so to speak, and as a last word from one of the greatest medical teachers whom the world has ever known. It is the more acceptable, as Osler himself had attended to the greater portion of the work of revision. This was completed by Professor McCrae who, for many years, was associated with Osler not only as a student but as an assistant, colleague and collaborator.

It would be carrying owls to Athens to offer a critical review of this book. Osler's "Practice" is, perhaps, as much the practitioner's Bible as is Gray's "Anatomy" that of the medical student. We doubt whether there are as many as ten percent of American physicians who do not want to study this work. All that remains for the Reviewer to say, therefore, is to call attention to this latest edition, which bears as a frontispiece a beautiful likeness of its senior author, and to express the hope that copies may be acquired even by those physicians who own one or several of the older editions. It is decidedly worth while.

FISHBERG: "TUBERCULOSIS"

Pulmonary Tuberculosis. By Maurice Fishberg, M. D. Second Edition, Revised and Enlarged. Illustrated. Philadelphia: Lea and Febiger. 1919. Price $6.50.

The second edition of this useful book should have been announced long since. As a matter of fact, the Reviewer had hoped to induce a tuberculosis man to write a review for him. For this reason, he postponed discussion of the book. Unfortunately, he was not successful.

Fishberg's book on tuberculosis is addressed with special insistence to the general practitioner for the reason that he can, and should, do more than recognize phthisis in its earliest, or pretuberculous, stage; also because institutional treatment is not the only effective method of handling the phthisical patients. Even though treated in sanatoriums, they must be cared for by their family physicians before admission and after discharge. Careful home treatment is productive of practically the same immediate and ultimate results as institutional treatment, and it is less costly to the patient and to the community.

The theoretical discussions are not only of great interest to the student but possess decided practical merit. Especially does the Reviewer desire to urge the careful study of the chapter on phthisiogenesis. It is now universally accepted that adult phthisis develops upon the basis of a tubercle bacillus infection acquired in childhood. As a matter of fact, infection of healthy adults, through consumptives with whom they come in contact, and followed by progressive tuberculous disease occurs comparatively rarely. In the great majority of cases, the disease develops in those having harbored a latent or quiescent infection since childhood, as was pointed out first by von Behring. This is, of course, of great importance prophylactically.

The chapters on the symptomatology of phthisis, on the diagnosis, prognosis and treatment, are very interesting. While it is difficult to learn diagnosis from a book, it being urgently necessary to study under an accomplished and capable clinician, the finer points of diagnosis and also the primary principles can well be acquired through the careful study of Fishberg's description.

In his treatment, Fishberg does not have much use for tuberculin, believing that very

small doses are useless, while large doses have serious potentialities for harm. The author makes ample use, in his symptomatic treatment, of drugs in addition to the general hygienic, dietetic and climatic regime that is prescribed.

In regard to climatic treatment, the author asserts that the vast majority of tuberculous patients are amenable to home treatment. If they are to recover at all, they can accomplish it without leaving their home surrounding. To secure the benefit of climatic advantages, it must be kept in mind that it is not only good air but also good residence and, above all, good food that the patient must secure if he is to recover. All this, unfortunately, brings the cost of climatic treatment to a figure quite beyond the resources of most tuberculous patients. Indeed, the author's conclusion is justified, that climatic treatment is a luxury available for the chosen few, while the vast majority of sufferers from tuberculosis must perforce remain at home for treatment.

We have enjoyed studying Fishberg's book. While we do not agree with him in al his theoretical considerations, we do not hesitate to acknowledge its great excellency, and its decided value not only for the general practitioner but also for the tuberculosis physician.

HARRINGTON: "THE SCHOOL OF SALERNUM."

The School of Salernum, Regimen Sanitatis Salernitanum. The English Version. By Sir John Harrington. History of The School of Salernum, by Francis R. Packard, M. D., and A Note on the Prehistory of the Regimen Santatis, by Fielding H. Garrison, M. D. New York: Paul B. Hoeber. 1920. Price $3.75.

A book dealing with the first independent medical school which existed as much as a thousand years ago, can not but be of immense interest to modern physicians. The School of Salernum, we are told by Fielding H. Garrison, was founded in the little seaside town of Salerno, near Naples, which had long been known as an ideal health resort. While there was in that town a Benedictine convent and the Benedictines were much concerned in caring for the sick, the school seems to have been maintained by lay people; indeed, the tradition which was formerly most generally accepted was, that the school was founded by four physicians, a Jew, a Greek, a Saracen and a Latin, who foregathered at Salerno about the middle of the seventh century. This cosmopolitan group was supposed to explain why medicine, as taught at Salerno, embodied the learning of all nations.

Whether this tradition is based on fact or not, it is undoubtedly true that the Salernum school forms a beacon light in the darkness of the early middle ages and that much good work was accomplished there. Years of study were required of its students; anatomy was studied on cadavers of pigs; several noted women physicians published treatises on medical subjects, and writings on hygiene and other important topics originated there. The "Regimen" is really a handbook of domestic medicine. It was not intended for the medical profession but for the guidance of laymen. Still, its merits were such that it was copied many times and translated into many different languages.

The Reviewer has no intention of telling anything about the contents of this interesting little book. It is an attractive volume for perusal in the physician's leisure hour. It is to be hoped that it will find wide distribution and acceptance.

DOCK AND STEWART: "HISTORY OF NURSING."

A short History of Nursing. From the Earliest Times to the Present Day. By Lavinia L. Dock, R. N., in collaboration with Isabel Maitland Stewart, A. M., R. N. New York and London: G. P. Putman's Sons. 1920. Price $3.50.

While a history of nursing naturally is of more immediate interest to nurses. physicians also will do well to familiarize themselves with this subject. The little book before us deals with the care of the sick in the ancient world; the influence of Christianity upon it, and then leads up gradually to Florence Nightingale who founded the modern school of nursing after which nursing as a profession has become fully recognized and acknowledged as a factor of immense importance in the social life.

The authors, Miss Dock and Miss Stewart, are well-known authorities in the

nursing profession. Their work is very acceptable and we congratulate them upon the interesting manner in which they have dealt with the subject that might have become dry.

STITT: "BACTERIOLOGY"

Practical Bacteriology, Blood Work and Animal Parasitology, Including Bacteriological Keys, Zoological Tables and Explanatory Clinical Notes. By E. R. Stitt, M. D., Sc. D. Sixth Edition, Revised and Enlarged. Illustrated. Philadelphia: P. Blakiston's Son and Company. 1920. $4.00.

We are happy to announce a new edition of Stitt's work on bacteriology, blood work and animal parasitology. This sixth edition has been enlarged somewhat and has, thereby, been made even more useful than it was before. It is one of the most acceptable, albeit, one of the most concise and handy textbooks on the subject with which it deals.

Incidentally, we desire to record with great satisfaction the fact that the author, Dr. E. R. Stitt, has recently been appointed Surgeon-General of the Navy, in place of Doctor Braisted who retired.

VECKI: "SEXUAL IMPOTENCE"

Sexual Impotence. By Victor G. Vecki. Sixth Edition, Revised. Philadelphia and London: W. B. Saunders Company. 1920. $3.00.

A new edition of Vecki's well-known work on sexual impotence must be welcome to the many students of this vexing and difficult subject. For a medical book of any kind to pass through so many editions is proof positive of its merit, and we congratulate the author upon his success. It is interesting to note that "under the sway of endocrinology", as the author puts it in his preface, this new edition has received the imprint of the constantly increasing knowledge of the functions of the glands of internal secretion. There can be no manner of doubt but that in these mysterious structures and their functions will be found the solution of many problems that have hitherto puzzled investigators. Indeed, we may hope that even sexual impotence will become more amenable to successful treatment than hitherto, by resort to properly selected endocrine treatment.

Doctor Vecki's book is just as good as it always was; better if possible. The subject is treated in a dignified and lucid manner. His teachings may be accepted as authoritative.

CHOULANT-FRANK: "ANATOMIC ILLUSTRATIONS"

History and Bibliography of Anatomic Illustrations In Its Relation to Anatomic Science and the Graphic Arts. By Ludwig Choulant. Translated and edited with notes and a biography by Mortimer Frank, B. S., M. D. Chicago: The University of Chicago Press. 1920. Price $10.00.

This beautiful volume was published as a memorial to our colleague and townsman Dr. Mortimer Frank, whose premature death, in April 1919, at the age of only forty-four years, the entire medical profession deplores with us. Doctor Frank was an enthusiastic delver into the medical lore of the past. For years, he had realized the importance, not only to physicians but also to artists, of Choulant's history of anatomic illustrations. He had devoted himself to its faithful reproduction, the original having long since been out of print and scarcely available except in a few libraries.

Unfortunately, Doctor Frank did not live to see the finished work; some of his friends completing his manuscript and seeing it through the press. While this finished edition of Choulant will deservedly perpetuate the meritorious work of the German anatomist, it will, at the same time, stand as a monument of the industry, scholarship and erudition of the American medical historian, Doctor Frank.

DUNLAP: "PERSONAL BEAUTY AND RACIAL BETTERMENT"

Personal Beauty and Racial Betterment. By Knight Dunlap. St. Louis: C. V. Mosby Company. 1920. 95 pp. Price: $1.00.

The author, who is Professor of Experimental Psychology in the Johns Hopkins University, gives in this little volume a brief and clear presentation of the subject of eugenics, as seen from the physiological standpoint. It will be of especial interest to physicians, ministers, and other students

of social problems. As the author frankly admits the prodigious obstacles in the way of practical eugenics, the book is stimulating and suggestive rather than conclusive as to what is to be done. Instead of diminishing its value, this rather enhances it, for, writers on this subject too often spend themselves in advocating some pet hobby, instead of recognizing the fact that much thinking must be done, and much educating of the general public before practical measures can be adopted for racial betterment.

The problem can be presented in a nutshell: The unfit multiply rapidly; the fit, scarcely at all. How can we reverse those conditions? Some day, perhaps, sterilization of the unfit will help greatly, but the present state of public opinion, or, perhaps it would be more correct to say, the state of public intelligence, does not permit much that is effective along this line. An interesting and somewhat novel feature of the book is a discussion of the influence which the theatre has upon eugenics, based upon the fact that actresses and opera singers are drawn largely from the best types of the sex, physiologically and mentally, and, yet, motherhood among them is the exception rather than the rule.

FLETCHER-MCLEAN: "PRACTITIONER AND LABORATORY."

The Link Between the Practitioner and the Laboratory. A Guide to the Practitioner in his Relations with the Pathological Laboratory. By Cavendish Fletcher and Hugh McLean. New York: Paul B. Hoeber. 1920. Price $1.50.

According to the preface, the objects of this book are:

Firstly, to give a list of those diseases, in the diagnosis, treatment, and prognosis of which the pathologist can be of assistance to the practitioner. It must not, of course, be assumed that all the tests are absolutely diagnostic. Many will be of purely negative value, and others may simply weigh the balance of evidence in favor of one disease rather than another. Others, again, may be of aid in prognosis or in the regulation of therapeutic measures.

Secondly, to state briefly what material should be obtained for each test, how and when to obtain it, and how to send it to the laboratory.

Thirdly, to give the time which must elapse before a report from the pathologist can be expected. In this connection, it should be clearly understood that the times given are *minimum* times, and, except in cases of great urgency, the pathologist should be allowed a considerable degree of latitude in this respect.

Fourthly, to give a brief résumé of vaccine and serum therapy.

So far, so good. In what the book contains, it is clearly of service to the general practitioner in many directions. This service would have been greatly enhanced if the authors, or somebody else, would prepare a handy volume, such as the present Reviewer has suggested before now, in which the results of laboratory tests are discussed for the benefit of the general practitioner, deductions as to etiology, diagnosis, prognosis and treatment being drawn and suggestions being made to the general practitioner for the best utilization of the services which the laboratory technician is ready to give him.

We believe that this additional information to a book like the one before us would be of tremendous value and that it would be greeted with acclaim and great satisfaction by very many practitioners.

JENSEN: "MASSAGE AND EXERCISE"

Massage and Exercises Combined. A Permanent Physical Culture Course for Men, Women and Children. Health-Giving, Vitalizing, Prophylactic, Beautifying. Illustrated. By Albrecht Jensen. New York. Box 73. G. P. O. 1920. Price $4.00.

Somewhat different from most books on massage is the one before us in which massage treatment is combined with active exercise, with a physical culture course and a system of deep breathing exercises. The teachings given by Mr. Jensen appeal to us as being very useful. Undoubtedly, his book will repay careful study.

CUSHING: "TUMOR OF THE NERVUS ACUSTICUS"

Tumors of the Nervus Acusticus and the Syndrome of the Cerebellopontile Angle. By Harvey Cushing. Illustrated. Philadelphia: W. B. Saunders Company. 1917. Price $5.00.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters

Queries

QUERY 6542.—"Guarana." G. W. C., Illinois, has for years been trying to get the alkaloid of guarana sorbilis but has been unsuccessful. He finds that one pharmaceutical house lists it in combination with acetanilid, which he does not like. He asks: "Do you know where I can get it?"

Since the introduction of guarana, the drug has been very carefully studied and the findings of Martius, who, in 1826, discovered in it a crystallizable substance and named it guaranine, have been disproved and the identity of this substance with caffeine definitely established.

As a matter of fact, caffeine in the form of a tannate is obtainable in greater quantity from guarana than from any other source. The alkaloid of guarana, therefore, would practically be caffeine and this we certainly can supply.

The tannic acid of guarana proves, upon close study, to be identical with caffeotannic acid and kinotannic acid. By exhausting guarana paste of its caffeine by repeated extraction with chloroform, and subsequently extracting with absolute ether, a microcrystalline substance was secured which proved to be catechin. Therefore, in the ordinary preparations of guarana (not the alkaloid) we would have caffeine, caffeotannic acid and catechin, and it is probable that the utility of preparations of guarana in diarrhea, leucorrhea, etc., is due to the tannin content. The other indications, i. e., nervous headache, cephalalgia accompanying menstruation, sick headache (migraine), with cerebral anemia, mental exhaustion or depression, and headache from dissipation—all are perfectly met by caffeine.

Naturally, guarana possesses diuretic properties and therefore one or two earlier writers caution that its administration in full doses might be followed by dysuria.

One of the best preparations of guarana, in this writer's opinion is the specific guarana prepared by Lloyd Bros.

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QUERY 6543.—"Hyperhidrosis During Menopause." D. V., Colorado, writes: "I have some cases of excessive sweating at the change of life. Patients say they must have air. They get hot and must kick the covers off nights, they get cold. Can you suggest a remedy?"

The air hunger, profuse diaphoresis and "hot flashes" you speak of are distinct evidences of vasomotor disequilibrium and dyshormony and are observed in nine women out of ten passing through the menopause.

Perhaps the most efficient treatment in the ordinary case consists of brucine, gr. 1-64, berberine, gr. 1-64, and cactoid, gr. 1-32, three times daily, with some such formula as: helenin, gr. 1-12, viburnoid, gr. 1-12, dioscoroid, gr. 1-6, gelsemoid, gr. 1-250, avenin, gr. 1-6, scutellaroid, gr. 1-12, one every three hours. Occasionally it is necessary to administer neurolecithin, in combination with nuclein, and, if more marked sedation is called for, the valerates of iron, quinine and strychnine may be given or the bromides, in small doses. A very excellent formula which meets the requirements in many cases is that devised by Waugh: gold bromide, gr. 1-250, arsenous bromide, gr. 1-250, nickel bromide, gr. 1-16, strychnine valerate, gr. 1-128.

Of late, pluriglandular combinations have been employed by many physicians with great satisfaction and Harrower, of Glendale, Cal., strongly recommends the administration of a capsule containing: desic.

corpora lutea and ovarian substance, grs. 2 1-2, thyroid gland. U. S. P., gr. 1-12, pituitary gland, gr. 1-8, calcium-phosphorus comp., q. s. ad grs. 5. One such capsule is given at each meal. The dose may be doubled for a few days before and omitted during menses.

In all these cases, of course, it is very essential to keep up thorough elimination, to correct any discovered abnormalities of the pelvic viscera and, frequently, to relieve local congestion by the application of some such suppository as the glycero-magnesium (depleting suppository), followed by copious hot alkaline douches.

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Query 6544.—"Chloasma." F. M. P., Illinois, is treating a woman, thirty years old, married and seemingly in good health, who has dark brown patches on the forehead across the nose and cheeks. The patches are irregular and large, covering most of the forehead with spots not affected. He asks: "Can you suggest a treatment that will remove them?"

It seems that you have to deal with a case of chloasma. In this disorder, the only alteration of the skin is in its color; in pityriasis versicolor, we have a vegetable parasitic disease, characterized by the appearance of brown, variously-shaped and sized patches, usually upon the trunk. The patches at first are circular, but as they grow larger they lose definite contour though occasionally the edges are slightly raised. The only subjective symptom is itching and this is frequently absent.

As you are aware, the treatment of chloasma proper is very unsatisfactory. Idiopathic chloasma includes all those cases in which the pigmentary increase is due to local or external agents. In symptomatic chloasma, the more important variety includes all forms of pigment deposit which occur as a consequence of various organic and systemic diseases, namely, tuberculosis, secondary syphilis, sarcoma, cancer, malaria, Addison's disease, Graves' disease, and functional and organic affections of the utero-ovarian system. With the exception of the pigmentation observed in the last-named, the most common cause of symptomatic chloasma, it is usually more or less diffused.

In this case, because of the discoloration appearing upon the forehead, we cannot but consider that you have under observation a typical chloasma uterinum and, naturally, it is extremely difficult to suggest a therapeutic procedure without knowing a great deal more about intrapelvic conditions.

Chloasma uterinum is seen in women between the ages of twenty-five and fifty, and is most commonly observed during pregnancy but may also occur in connection with any functional or organic disease of the utero-ovarian apparatus.

Under the circumstances, may we suggest that you make a careful study of your patient, not only of the pelvic organs but of the digestion, eliminative conditions and tone of the general health. In some instances, of course, it is difficult or practically impossible to discover any faulty condition of the general system and, here, reliance must be placed upon local treatment, which is (1) removal of the epidermic corneous layer and upper-rete cells, and, with these, the pigment; and (2) stimulation of the absorbents.

Local treatment resembles that employed in the removal of freckles, but, as a rule, must be more energetic. Very rarely, indeed, will such agents as peroxid of hydrogen prove effective. The writer's experience would lead him to believe that corrosive sublimate, lactic acid or salicylic acid are the most useful. Weaker strengths should be employed at first to ascertain the sensitiveness of the skin. The percentage should be gradually increased until branny exfoliation begins to show itself or active irritation supervenes, when treatment should be discontinued until symptoms have subsided. During this period, a mild soothing salve, such as cold cream, can be applied for a day or two. It is more than possible that chlorazene surgical cream might prove useful at this stage.

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Query 6545.—"Pellagra." M. R. P., Arkansas, wishes to know the best treatment and diet for pellagrins. He has some patients that are giving him quite a little trouble.

It is our intention, within a few months, to publish one or two articles upon this subject. In the meantime, we would refer you to the paper. "Types and Treatment of Pellagra," by Stewart R. Roberts, of Atlanta, which appeared in the July 3, 1920

issue of *The Journal of the American Medical Association.*

Another very interesting article on the etiology and treatment of pellagra was that by Dr. J. H. Graves, which appeared in *The Southern Medical Journal,* July, 1917. Also, as you may be aware, during 1918-19, quite exhaustive articles on the subject were published in CLINICAL MEDICINE.

At the present moment, we believe that sodium cacodylate, (administered hypodermically in rather full doses), nuclein and calcium sulphide, are the most effective remedial agents, but a carefully-balanced, highly nutritious diet is, of course, essential. The protein content should be high, and the patient advised to eat vegetables freely.

During active exacerbation, rest in bed is important and we need not point out that it is necessary to protect the patient from exposure to the sun. Wherever possible, the patient should be sent to a cooler climate during the hot months.

As a general measure, it is most important to prevent the accumulation of toxic material in the bowels. Therefore, castor oil, in medium doses, should be ordered once or twice a week. If diarrhea is a feature, enemas of physiologic saline solution are advisable.

The usual dose of sodium cacodylate is 2 to 4 grains (the larger dose being preferable) every fourth or fifth day. In certain cases, of course, it may be desirable to begin with the small dose and gradually increase until evidence of drug sufficiency and distinct remedial action are apparent.

At least ⅓ grain of calcium sulphide should be given every two hours during the waking day, and continued until the breath and excretions of the patient evidence saturation.

In the dietetic management of pellagra, we have to differentiate between the acute period, during the attack when stomatitis, glossitis, dyspepsia, and diarrhea are present, and the intermission, or interim.

During the attack, the diet should be as generous and nutritious as is compatible with the patient's power of digestion. The strength is to be conserved in every possible way. It is to be remembered that the diet is to him both a food and stimulant. Of course, when the attack is at its height, the mouth raw and sore, solid food cannot be taken; and even acid liquids, such as, orange juice, grape juice, and such, give pain. They are, therefore, to be avoided. During this period, soups, especially purees, milk, strained oatmeal, malted milk, buttermilk, barley water and albumen water, may be used freely. Large quantities of sweet milk are apt to produce indigestion. It, therefore, can be peptonized, thinned with water or given with the addition of 1 ounce of lime water to each 10 ounces of milk as may seem most desirable. During this period, nourishment should be administered every two or three hours and forced as far as possible. Not infrequently pellagrins, at this time, may be nauseated. It may become necessary to give nothing but a little plain water, barley water or albumen water every twenty-four hours. In very many cases, buttermilk proves extremely agreeable to the patient and may be given freely.

As convalescense begins, the patient may receive, in addition to the liquid diet, mashed or baked potatoes, soft-boiled or scrambled eggs or omelet, butter, toast or zwiebach, rice with milk, fruits and small quantities of scraped beef or mutton. It is recommended, in addition to the three ordinary meals (breakfast, dinner and supper), that nourishment be given at 10:00 a. m., 3:30 p. m., and bedtime. By so forcing nutrition, improvement is much more rapid. At these intermediate times, buttermilk, malted milk, milk and lime water, milk shakes, and similar nutritious liquids may be given with a slice or two of zwiebach. At bedtime, a glass of buttermilk proves most desirable.

As the patient continues to improve, fluids may be abandoned (except between meals) and he may be given broiled steak, roast beef, chicken and fish; however, hog meat in any form is to be avoided. It must be remembered that, during the attack, the pellagrin has lost flesh and there is a demand on the part of the system for protein-bearing foods. Eggs, therefore, may be given freely, together with cream-cheese, rice, hominy, baked potatoes, green peas; even Boston baked beans are suitable at this time. Butter and fat should be given in large quantities, and, as a rule, are digested easily. It should always be borne in mind that the pellagrin demands protein, carbohydrates and fats. Therefore, the diet should be as generous as the di-

gestive condition will permit. It is unnecessary to again call attention to the fact that great care must be taken to maintain elimination of waste.

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Query 6546.—"Permanent Dye for Eyelashes." K. J. S., Tennessee, wishes some preparation that may be safely used to permanently dye eyelashes dark brown or black.

We do not know of a dye which may safely be used to permanently dye eyelashes a dark brown or black. Eyelashes must necessarily be treated with extreme care and the ordinary dyes which are employed to color the hair and beard (consisting of a mordant and dye) could not be safely applied to the eyelashes.

One of the dyes commonly used by barbers consists of: No. 1 (mordant), pyrogallic acid, 3 drams; alcohol,5 fluid-ounces; water, 11 fluid ounces; mix and dissolve.

No. 2: nitrate of silver, 2 ounces; aqua ammonia, about 4 fluid ounces; distilled water, about 12 fluid ounces; dissolve the nitrate of silver in 8 fluid-ounces of the distilled water and add 3 ounces of the aqua ammonia. This will produce a dark brown precipitate. Continue to add aqua ammonia in small quantities until the precipitate is entirely redissolved, then add enough distilled water to make a pint.

Most of the hair restoratives offered to the laity are "guaranteed to contain no lead or silver" and are made in different strengths, according to the shade which they are intended to produce. Analysis of one of the most popular preparations revealed the following composition: nitrate of silver, 420 grains, sulphate of copper, 120 grains, stronger ammonia, q. s., water sufficient to make one pint. For light shades of brown, the solution should be applied once a day; for darker shades, twice a day.

Another product is simply a solution of nitrate of silver to be diluted according to the coloring effect desired.

The henna dye, used by women in the East who desire to make themselves beautiful (and, we are sorry to say, at the present time by our own females who desire to be a little different to what the Almighty intended them to be), consists of an infusion of henna leaves in warm water. The leaves are allowed to stand for two or three days, and the fluid is then boiled and strained. The extract thus obtained is again boiled down to one-tenth its original volume and applied to the hair, which has previously been freed from all grease. Sometimes, a substance known as reng (a species of the indigo plant) is used in combination with the henna. Care must be used, however, not to allow the mixture to touch the skin. It is said that untoward results may follow unskillful application of the fluid, the hair turning green.

It is probable that some of the larger beauty parlors may be able to give you the information you desire, for, it is quite certain that some of the beautiful black eyebrows and eyelashes one sees upon the avenues are works of art.

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Query 6547.—"Bacterins in Rheumatism, etc." A. C. B., Oklahoma, writes:

"I have been a sufferer from rheumatism for the last twenty-five years—some every year and more or less some years, but entirely free of it for only a few weeks or months, or so, up to the last two or three years, when I began to use the cold, catarrh, and flu bacterins (the combined).

"I first noticed that, after taking a course of the bacterins, my rheumatism would always be better for a while. I did not take much notice of this at first but, finally, the fact became obvious when, after some twelve or eighteen months' time (using the bacterins from once to twice every six months), the rheumatism failed to return; so, the last two years have been almost entirely free, until some time during the middle of this summer, when I had a wisdom tooth that began giving trouble. This was removed; however, the pain in that region did not entirely stop and, upon closer examination, two molars were found defective and removed.

"Shortly after the teeth began to give trouble, the tonsil on the same side became quite sore. This, while being an exceedingly rare thing with me, nevertheless led to quite an acute attack of rheumatism, a few days after the tonsil became painful. This was the first now for some two or three years.

"After a week or ten days of active treatment, the tonsillar and dental soreness disappeared; however, in the meantime, I took another course of the combined catarrhal bacterins; remembering the effects they had

on the rheumatism. So, by the time the tonsils and soreness from the teeth had disappeared, the rheumatism had also disappeared. No return attacks have occurred since, some three months now. During this time we have had an unusual spell of wet cool weather, at which times, in previous years, I would always suffer.

"The diet had been very carefully regulated the whole of the twenty-five years and other conditions were virtually the same during the whole time, the only change of diet or treatment being, the use of the combined catarrhal bacterins. Now, have the bacterins done this or has the rheumatism decided to be good? If so, many thanks to it or to the bacterins. Still, they cut the attacks much shorter and they were milder and less frequent.

"I want to ask to what extent can and should the bacterins be used? Will they lose their effect or finally become detrimental? I find that they do not render one immune from colds but that they certainly do shorten the attacks and lighten them. Can we expect attaining more nearly all the time to a state of immunity, or will the bacterins finally begin to lose their effect and require more to do the same work, and would they become injurious in any way?

"2.—R. L., male, some forty-five years of age, having gone the rounds, fell into my hands with symptoms of autointoxication which was setting up neurasthenia or hysteria, and also cardiac disturbances; palpitation at times, with some slight leakage and slowing down of beats. A radiograph showed catarrh of the gall-bladder and a loop in the transverse colon. The peristaltic action somewhat reduced, it taking forty-eight hours for the colon to completely empty itself.

"Now, what can be done to restore peristaltic action and relieve the stasis, or, in other words, get this colon to emptying itself faster? When I first saw this patient, some three months ago, he was in bed quite a portion of time and scarcely out of the house. Now, he is doing light work. He had been under treatment of some half dozen other doctors from Kansas City to Hot springs, Ark., and continually growing worse, until I started treatment which consisted of the following: aloin and vercolate after meals, a prescription of nux, cannabis indica, gelsemium and matricaria before meals, with cactin, strychnine and cratægus for the heart; colon flushing; with light diet and large quantities of wheat bran. Would an abdominal support help the loop in the transverse colon?

"3.—In what strength can bichloride of mercury be used and how long continued in solutions for dandruff and scalp affections without detrimental effect to hair? Would the bichloride in any strength be any way beneficial to the hair outside of the scalp, and would sulphur or quinine be of any benefit to the hair, in a bichloride solution, or the scalp?"

In your particular case, the "rheumatism" from which you suffered for years evidently was the expression of a bacterial intoxication, your organism not being sufficiently resistant to destroy the injurious bacteria and at the same time neutralize the toxins formed through their excess.

Your recent experiences in which the tonsils became irritated soon after the removal of a wisdom tooth and of two defective molars simply confirms this explanation.

At any rate, we are of the opinion that the bacterin employed was instrumental in removing the tendency of "rheumatism." That sort of affection is not likely to "decide to be good," as you suggest as a possible explanation. Indeed, with increasing age, it usually becomes worse, as you know quite well. It must be due to the bacterin that the attacks of rheumatic pain have subsided.

A further confirmation of this view is offered by the fact that you have lost your susceptibility to "colds."

You desire to know whether bacterins will lose their effect with continued application and whether in time they may become detrimental. Bacterins will exert their beneficial effect (always providing that they are "specific" for the affection in hand; that is to say, that they have an affinity or definite relation to the trouble for which they are given) as long as the tissue cells have not become accustomed or "immune" to them. If a bacterin is injected repeatedly at the same point, a time will come relatively soon when the tissue cells in that location will have acquired such a high degree of immunity as to disintegrate the injected bacterial substances promptly, thus preventing their being carried into the circulation and exerting any

distant effects or focal effects. In that way, bacterins would "lose their effect."

It is a simple matter to avoid this by changing the place of injection. It is our custom to inject bacterins alternately in the right and left upper arm. If the treatment is long continued, especially if the intervals are short, it is well to use from four to six different localities; that is to say, the arms, the thighs, the abdomen, or the shoulders, giving the injections in rotation so that, by the time the first locality is in turn once more, the tissues will have lost the power to break down the bacterin in place. They will permit it to enter the circulation and manifest its effect at the focus of infection where it is needed.

A possible injurious action of a bacterin can occur if the dose is such as to produce an excessive reaction. While a single severe reaction is not harmful, a repetition of such an irritation has possibilities of decided harm, because, in time, the tissue cells undoubtedly will lose their power of reaction. Especially if intervals between doses are too short, the organism is kept in a more or less continued "negative phase" (Wright), during which, as you know the organic resistance is below par. It is for the physician to determine the optimal intervals between doses and also the most successful quantities that are injected. Personally, we like to keep the reaction moderate in degree, believing that it is better for the ultimate establishment of an immunity.

You must remember, Doctor, that bacterial immunization by means of bacterins is really a process of training of the tissue cells by which they are taught to respond to the foreign bacterial-proteid substances by the formation of antibacterial, bacteriolytic, or "immune" substances. Once the immunity is completed—and this can be determined quantitatively by the complement-fixation test—further injections of a bacterial vaccine, or a bacterin, can accomplish no additional good. While, in the case of bacterins, "dose enough" must be a condition, it does not mean that "dose enough" is identical with excessive dose. However, individual requirements vary. One organism may need twice as much of bacterin stimulation as does another one. This always has to be determined by the physician in attendance. Regarding your male patient, forty-five years old, and suffering from "neurasthenia" with underlying enteroptosis, the treatment that you have given is, of course, essentially correct. As for your question whether an abdominal support would help to hold the transverse colon in proper position, we unhesitatingly reply affirmatively, with the proviso, however, that this abdominal supporter must be applied correctly. A badly fitting and badly adjusted abdominal supporter is worse than useless. Fortunately, the correct construction and location of such a supporter can be determined readily by x-ray examination.

We are quite positive in this particular instance, because the writer, himself, has been very miserable for years owing to a severe ptosis of the transverse colon; having symptoms of all sorts of things, being accused of gallstones, duodenal ulcer, and worse; until, finally, x-ray examination established the actual state of affairs. He wore a supporter constructed correctly for several months; in fact, until the hot weather, last summer, made it impossible. The result is, a complete recovery of health, disappearance of pain and other symptoms. Recently, with the return of cool weather, he has resumed the wearing of the supporter. The reason is, that a few months cannot have been sufficient to replace that transverse colon lastingly. That, we think, will be accomplished only when the writer can succeed in bringing up his weight to normal.

The measuring for a supporter and its contraction really must be a strictly individual matter. If your patient were here in Chicago, it would be a simple matter to refer him to a proper place.

As to your third point: bichloride of mercury for application to the scalp should not be used in a strength higher than 1 in 1000 or 1 in 2000, and not for prolonged periods. Undoubtedly, an unduly strong solution and an excessively prolonged use will result in injury to the scalp.

In any case, since we have available the chlorine-bearing antiseptics, it is our opinion that bichloride of mercury can well be replaced by chlorazene solution, or by chlorazene cream. This will not have any injurious effect on the scalp.

Sleep Restores the Balance of Efficiency

Loss of sleep is a form of starvation more certainly destructive, even than that resulting from the lack of food.

Sleep, on the other hand, reverses the downward trend caused by our waking activities and elevates us, physically and mentally, to a point of efficiency commensurate with the quality and quantity of sleep we have experienced.

A scientifically built mattress is not the least important factor in inviting sleep of complete relaxation and thus completely restoring the balance of efficiency.

In the Sealy Mattress every requirement of hygienic design, sanitary construction and physiologically correct service has been met. Only antiseptically cleaned long fibre cotton is used and the special air-weave process makes it a complete unit **without tufting.** This mattress invites deep, restful sleep because of its resiliency, and because of the unbroken, smooth surface which molds itself to support every part of the body.

SEALY MATTRESS COMPANY
SUGAR LAND, TEX.

News Notes Department

Many physicians will be glad to know that it is now possible to prescribe a clear medicinal Norwegian cod-liver oil, that has back of it the results of fifty years of specialization. The makers of Bonola the "S. & B." Process Clear Cod-Liver Oil, seem to have left no stone unturned to guarantee to the physician, who may prefer to have his patients use this important nutrient, without admixture, the best possible in purity and palatability. Commendable enterprise has been displayed in that the makers of Bonola, desiring to be in a position to guarantee its absolute purity, have built their own plants at Balstad, Lofoten, Norway, where conditions are ideal for a bountiful catch, and where there would be no chance of adulteration, because of the admixture of the livers of other fish than those taken from the gadus morrhua.

With their oil-expert resident in Norway, giving his exclusive attention to the selection of the healthy, fresh livers and the production of the crude oil, the result is a medicinal oil of the highest quality and guaranteed 100% pure cod-liver oil. In due season this carefully made crude oil is transported to the United States in hermetically sealed containers, where it is subjected to the culminating refining process, in the unique S. & B. Cod-liver Oil Refining Laboratory, at Bloomfield, N. J. We are informed that the makers of Bonola will furnish further information about this product and samples upon request.

In a recent article, Dowd said that very satisfactory work in urinalysis can be done with simple apparatus and a few reagents. Much has been done in recent years to simplify this work and adding rather than subtracting from the accuracy of the findings. Anyone who thinks an extensive laboratory with costly equipment is necessary for determining the essential diagnostic features in urine, for example, is deceived.

The presence of sugar is readily detected with Fehlings Solution and no other apparatus than a test-tube. But better still for this purpose are F. A. F. Sugartest Strips. They are ten times more sensitive than the older reagent and hence more accurate. With them one is able to do a test in less than a minute's time and at a cost for materials of less than two cents.

To make a quantitative analysis of a sample of urine the doctor has at his disposal the

How I Lost a Patient

About 3 weeks ago a man came to my office with a badly infected hand. He was suffering great pain. A bright red streak extended to the axilla, where I found a large and very tender lymphatic. I opened the hand and cleaned out a number of abrasions, using a bichloride of mercury solution. I dressed the hand several times later with little or no improvement. Then he passed into other hands and I did not blame him in the least.

About a week later one of his companions came in with an exactly similar condition. The second man I treated solely with Dionol, making three applications only, with complete relief. It is needless to say I shall certainly use Dionol again.

(Sgd.).....M. D.
(Name on request)

The Dionol Co. Dept. 20.
Detroit, Mich.

Please send FREE sample and literature.

.....M. D.

.....

.....

DOCTOR:

The above is a verbatim copy and was entirely unsolicited. If Dionol is new to you, you too can quickly demonstrate its value in local infections, ulcerations, burns, wounds, carbuncles and in local inflammations generally.

THE DIONOL CO.
Dept. 20
Garfield Bldg., Detroit, Mich.

Tooth Destruction

How Nature would combat it

Nature's tooth cleanser is saliva, but it should be plentiful and thin.

Nature's starch combatant is ptyalin — the starch digestant in the saliva. But it needs stimulation when modern diet, rich in starch, contains too little of the fruit acids.

Nature's acid combatant is alkali in the saliva. But that also often needs stimulation.

The stimulation

Pepsodent supplies that stimulation. This by being acid in reaction, as per modern dental requirements. It contains no soap, no chalk, no alkali..

Each application multiplies the salivary flow and reduces its viscosity.

It multiplies the ptyalin in the saliva to digest starch deposits that cling and which may ferment and form acid.

It multiplies the alkaline index of the saliva to better combat mouth acids.

Its use soon results in a permanent increase in the alkaline reaction of the mouth.

Its other effects

Pepsodent also combats mucin plaque in uniquely efficient ways.

It keeps teeth highly polished. Thus plaque does not so easily adhere.

Its polishing agent is essentially tricalcic phosphate, finely powdered, sifted through a 200 mesh. That is the chief tooth constituent.

The absence of soap—a lubricant —makes this agent rather apparent. But it does not scratch enamel. Among our experiments, we have brushed natural teeth with it 250,000 times without any ill effects.

The modern method

Pepsodent complies with modern dental opinion. It embodies today's accepted principles. It omits the soap, the chalk, the germicides to which authorities object.

You should know its principles, its composition and its effects. If you do not, send the coupon for our literature and product.

PAT. OFF.
Pepsodent
REG. U.S.

The Modern Dentifrice

An efficient plaque combatant which complies in all ways with the best dental opinion.

THE PEPSODENT COMPANY, 555
6419 Ludington Bldg., Chicago, Ill.

Please send me, free of charge, one regular 50c size tube of Pepsodent, also literature and formula.

Name .....

Address .....

Enclose card or letterhead

F. A. F. Sugartest Tubes, with which an accurate finding is possible in about three minutes. Both of these time-saving glucose tests may be had from the Franco-American Ferment Co., 225 Sixth Ave., New York City.

Every doctor knows that one of the most common causes for digestive troubles, and for the under-oxydation disorders these bring about, is that of frying food in animal fat. So general is this condemnation of all such foods that it has become more or less routine to interdict all foods so prepared.

It is, however, much easier to give advice than it is to have it carried out. For with the majority of families the baking or boiling of meats and fish is simply out of the question; there are no facilities for preparing food in this manner. So the quick and handy frying pan is called on as first aid. There could be no objection to this, if only the food might be prepared without saturating it with grease, and without unduly toughening it by the slow frying necessary when grease or animal fats are used.

This can be overcome by using Mazola as a cooking fat, instead of animal fats. With it foods can be quick-fried. For Mazola has such a high smoking point, as compared with grease and animal fats that the surfaces of the food can be seared over, and all the rich juices retained in the food.

As a salad oil Mazola also has large sphere of usefulness, especially when given liberally in mal-nutrition and in wasting disorders; while 2 or 3 tablespoonfuls a day help to furnish these patients with much needed heat energy.

It is true that results count tremendously either for or against the surgeon according as they are good or bad, according as the limb treated is afterward sound or deformed. Certainly the fault in the latter case is not often to be laid to incompetency or neglect, except in this that in some instances a better splint may have been used; much depends on the selection of the splint. Best results are claimed when the Ambulatory Pneumatic Splint is employed. It can be adjusted for treating fractures of the leg, hip and thigh. The makers cite that it is strong yet comfortable when in place. It permits fractures to be treated in or out of bed. With it a broken leg can be set with precision, and with surety that the bone ends will be held firmly in apposition. For the patient it means that he need not lie constantly in bed, in one tiresome position day after day, but that he may within reasonable limits move about, and without fear of doing himself injury. The contrivance is happily conceived.

The doctor proverbially is a poor business man, which among the rest is saying that he is a poor collector. He can work like a demon, work while others sleep, travel long distances, in the blackest nights, all quite likely without complaint; and often we find him exhibiting an endurance that is almost super-

Influenza Is a Germ Disease

Catarrhal Conditions Favor

its development as the germ laden mucous from the nasal passages runs into the throat and stomach and poisons the whole system. It also irritates the sensitive surface of the throat and produces severe fits of coughing—one teaspoonful of Mistura Creosote Comp. (Killgore) mixed with a tablespoonful of water and swallowed slowly will give prompt relief. In chronic cases of Phthisis or Bronchitis give a teaspoonful in milk or water after meals. Beechwood Creosote is recognized as a safe and dependable destroyer of microbe life when properly administered.

Sample sent to physicians on request.

Charles Killgore

Manufacturing Chemist **Established 1874**

82 Fulton Street, New York

Grape-Nuts

finds its place in many a prescribed dietary because this prepared blend of wheat and malted barley fulfills a duty in illness or convalescence, as do few other foods.

All the nutritive qualities of the grains are preserved in Grape-Nuts, and its great ease of digestion and quick assimilation make it particularly valuable in every day practice.

Children are especially fond of Grape-Nuts because of its pleasing, nut-like flavor; and its sweetness (self-developed from the grains through processing and long baking) answers Nature's appeal for sweets in a natural, wholesome way.

Samples of Grape-Nuts, Instant Postum and Post Toasties, for personal and clinical examination, will be sent on request to any physician who has not received them.

Made by Postum Cereal Company, Inc.,
Battle Creek, Mich.

human. He can cure the sick. He can make the halt and lame to walk. But he is proverbially a poor collector. He neglects to send out statements, as business men do regularly. He allows himself to be imposed upon by people who can well afford to pay but who are not inclined to do so. He has always a lot of money due him and many old accounts on his books. That is why there is a legitimate field for such collecting agencies as the Creditors' Commercial Corporation, 855 Ellicott Square, Buffalo. This agency asks no fees in advance and makes no advance charges. They collect the doctor's accounts and from the amount realized deduct one-third for their services. This is a very fair arrangement one must admit.

So far, heliotherapy as a department of medicine has been somewhat neglected; meaning the application of sunlight to the treatment of disease. In the southern portions of our country, where sunlight is the more common commodity than with us in the north, it is readily applied, and some few institutions are utilizing it with more or less method and, generally, with good results. In the north, however, we may resort to artificial sunlight by means of such appliances as the Burdick Cabinet Company offers. With these appliances, light therapy is always possible, in any home or office. The company supplies several types of the appliance to answer various needs, and those of our readers who would like to add to their equipment are invited to write for a descriptive catalog covering the different models, and for information at length regarding the application of potentiated electric light.

Their new quartz lamp gives actinic rays of the highest purity and intensity, while the special reflector provided projects these rays to the best advantage for all purposes.

The flavines are attracting attention in this country, after a year or two of usage abroad. Derivative salts derived from anilin, they are said to be about twenty times more powerful than mercury bichloride while yet comparatively bland as regards living tissues with which their solutions come in contact; phagocytosis is not retarded; and they are accredited with a penetrating power not common to germicides which, because escharotic, form a pellicle or wall behind which infectious processes go on covertly.

Of these agents Acriflavine has been used mostly, against infected wounds as a wet gauze dressing or packing, and also against gonorrhea. It appears to be very effective as a gonocide, especially in cases presenting within three or four days after the appearance of the discharge. Some use it by injection in 1:1500 (physiologic salt) solution or weaker, while others claim best results from irrigation

MEAD JOHNSON & CO. MEAD'S D-M DEXTRI-MALTOSE EVANSVILLE, IND.

Infant Feeding *Diet Materials*

IF THE FORMULA IS WRONG
SO WILL THE BABY BE

Consider These Four Types of Bottle Babies

Baby A is a WELL Baby.
Baby B does NOT GAIN.
Baby C has CONSTIPATION.
Baby D has DIARRHOEA.

Should All Four Babies Be Fed Alike? YOUR answer is NO.

They are DIFFERENT, and therefore need a different formula. That is why MEAD'S DEXTRI-MALTOSE is not supplied to the laity with directions printed on the label.

When mothers continue to make the mistake of feeding according to stock formulas which are not tolerated by their babies, digestive disturbances continue—even become worse.

The DOCTOR'S HEAD WORK, plus "D-M," COW'S MILK and WATER means gratifying results.

Samples, analysis and interesting literature on request

MEAD JOHNSON & CO.
EVANSVILLE, IND. U.S.A.

THE MEAD JOHNSON POLICY
MEAD'S DEXTRI-MALTOSE IS ADVERTISED ONLY TO THE MEDICAL PROFESSION. NO FEEDING DIRECTIONS ACCOMPANY TRADE PACKAGES. INFORMATION REGARDING ITS USE REACHES THE MOTHER ONLY BY WRITTEN INSTRUCTIONS FROM HER DOCTOR ON HIS OWN PRIVATE PRESCRIPTION BLANK.

Welch's Grapelade

a pure grape spread

LIKE Welch's Grape Juice, Grapelade has all the richness and purity of choicest grapes. For this reason it is recommended by physicians and dietitians—and welcomed by patients.

Grapelade is "fruit-food"—"Honey of grapes"—smooth, purple, tart-sweet and pure. No seeds, no skins, and the acid crystals are removed by our patented process. Only pure sugar is added to the goodness of the fruit.

As a spread on toast, the delicate fresh grape flavor of Grapelade is tempting to invalids—and its richness is wholesome and nourishing.

The Welch Grape Juice Company, Westfield, N.Y.

with 1:4000 solution or weaker. In many cases the agent acts almost as a specific.

Both salts (the other being Proflavine) are being supplied by The Abbott Laboratories, Chicago, in powder for making solutions. They are supplying them in vials containing 1, 5 and 25 grams respectively. A booklet of working data may be had by addressing this firm.

Those of our readers who have given any thought and study to the glands of internal secretion must have become strongly impressed with the extreme importance of glandular therapy in its special fields of applicability. The results following the use of organotherapeutic preparations are sometimes astonishing. Witness the seemingly miraculous effects of the thyroid derivatives in myxedema and cretinism. The study of organotherapy, or as it is occasionally called, hormone therapy, is daily gaining in scope and prestige.

In his new book, entitled Practical Organotherapy, Dr. Henry R. Harrower gives us one of the most complete and comprehensive surveys of this subject. While the regular price of this work is $2.50, a limited number of copies for introductory purposes are offered physicians for the small sum of 25c to cover delivery charges.

The value of green vegetables in the diet of anemic patients is obvious. It has been attributed to the green coloring-matter in the leaves and stems, that is to say the chlorophyl, although it has never been possible to obtain therapeutic results from chlorophyl as such. The hematinic property appears to be lost in the process of extraction.

However, as Buergi has demonstrated, it may be restored by association with a small quantity of iron, too small to have any effect of itself. Then too, observation reveals that the hematinic effect of the extractives is not due solely to the chlorophyl but also to certain pyrrol bodies which are present in green vegetable tissues.

Guided by the foregoing Merck & Co. have recently brought out a preparation representing all the desirable hematinic extractives, in tablet form for administration to patients needing iron. As an iron-carrier it has the advantage over inorganic forms in that it does not constipate. To this preparation the name Phyllosan has been given; it marks a forward step, apparently, in rational therapy.

To disregard the fact that a great many people in this day are subsisting on a diet deficient in lime and other vital inorganic salts is sheer carelessness. The demineralized diet needs correcting. Nothing like satisfactory results from drugs may be expected unless this is done.

As a help in this direction the Moore Cereal Products Co., 4521 Ravenswood Ave., Chicago, gives us what they call Life-Grain, a derivative food from several of the cereals, containing

In the Treatment of

Diabetes Milletus-Chronic Acidity-Impoverished Blood

Use an anti-acid, starchless, sugar removing, hemo globein increasing food, to render patient's system most receptive to treatment prescribed.

MOORE'S LIFE-GRAIN

Contains in a high degree vital elements deficient in the average diet; i. e.: Iron, Potassium, Magnesium, Phosphorus, etc.

A great aid in the treatment of Diabetes and Acidity cases.
Anti-acid, starchless, and sugar removing.
Valuable food for Invalids and Children.
A pure food Laxative.

Price, 3 large pkgs. $1.00 within 600 miles of Chicago; beyond, 2 for $1.00 postpaid. Cases of 36 at wholesale price.

Order and handle yourself, or through your druggist. Many of the foremost doctors in the United States are getting wonderful results with this great food.

Send for Free Literature

The Moore Cereal Products Co.

4521 Ravenswood Ave. Dept. D. Chicago, Ill.

What Cooks Don't Know About Food Preparation Increases The Mortality Rate

EVERY physician knows that the best medical care, the most scrupulous attention to regimen can be discredited and undone by a course of badly-prepared food—or even by a few meals of improperly-prepared food. Indigestible, or badly-assimilated food, may be the predisposing, if not the exciting cause, of many ailments medical men are commonly called upon to treat.

Butter, goose-grease, lard, and ordinary cooking compounds, which burn at a low temperature, are absorbed in to the cell structure of the food—coating over the particles, rendering them infinitely less digestible.

Also, the low burning point of ordinary cooking fats tends to develop acrolein—intensely irritating to the delicate mucosa of the stomach and intestines.

Mazola can be heated to upwards of 650° before burning. The intense heat possible with Mazola cooking sears over the surfaces of the meat, fish, or other food; keeps in the savory juices and meat extracts, and prevents the absorption of the fat used in cooking. This, naturally, increases the digestibility and assimilability of the food.

Mazola is also perfectly delicious, used as a salad oil—replacing olive oil. Mazola carries from one to one and one-half per cent of lecithin—giving it thereby this additional advantage in all nerve exhaustion and wasting conditions.

Advise your patients to use Mazola, Doctor, for all cooking and salad purposes, and help them overcome under-oxydation conditions.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York City

MAZOLA IS SOLD BY ALL GROCERS EVERYWHERE

the desirable inorganic salts usually discarded in ordinary food products of this type, as well as nitrogenous matter, but excluding the starch. Carrying iron, calcium, potassium, magnesium and phosphorus, it offers a means of making up the common deficiency. It may be eaten straight, as a breakfast food with milk or cream and sugar, or mixed with an equal portion of such other cereal as the patient is accustomed to eating. One of our editors eats it every morning with fruit, usually bananas or dates plus sugar and cream. He finds this dish most palatable and satisfying.

Life-Grain, eaten by constipated persons, will often improve their condition, as regards bowel action. It is a good food for diabetics, and for those showing acidosis, as a basic defect.

A surgical recourse of obvious value is Cellosilk which comes from the Marshalltown Laboratories. Laid directly upon the wound area, it prevents the overlying gauze and other coverings from sticking. It may be had either perforated or impervious, in yard rolls. This artificial silk is cheaper than oiled silk or gutta percha or rubber tissue, besides serving better all the various purposes for which the older materials have heretofore been made to answer.

Cellosilk is non-adherent, as it should be. It may be sterilized before application. It is transparent, enabling the surgeon to observe the wound before finally exposing it for treatment. By sealing the edges with collodion, assuming the impervious dressing is used, a perfectly occlusive covering, against air-borne infection, may be achieved. The perforated article answers when drainage is sought and an occlusive dressing is not desirable.

Those interested should write the company in Marshalltown, Iowa, for a specimen.

A device that will interest many of our readers no doubt is the Vega Nasal Vacuum Pump, illustrated in our advertising pages this month. The pump is intended for home use by the patient between regular visits to the office.

The pump is composed of a stiff rubber bulb with enough resiliency to create a sufficient degree of suction, when the compressed bulb returns to its normal shape, to draw from the nasal cavity all accumulated pus and crusts that are commonly removed at the office of the nose and throat man.

The nasal cavity is sealed by the soft palate, as shown by arrows in the above illustration, under the control of the patient, who also closes one nostril with his finger. A few contractions of the bulb readily cleanses the entire nostril cavity. The edges of the outer end of the glass bulb, which enters the nostril, are so curved backward and into the bulb that no injury to the mucous membrane at the point of contact is possible.

The instrument has been in use for some time by many of the leading nose and throat specialists, and is highly commended by them for the specific purpose for which it is in-

The Management of an Infant's Diet

Malnutrition, Marasmus or Atrophy

Mellin's Food
4 level tablespoonfuls
Skimmed Milk
8 fluidounces . .
Water
8 fluidounces . .

Analysis:

Fat	.49
Protein . . .	2.28
Carbohydrates. .	6.59
Salts	.58
Water . . .	90.06
	100.00

The principal carbohydrate in Mellin's Food is maltose, which seems to be particularly well adapted in the feeding of poorly nourished infants. Marked benefit may be expected by beginning with the above formula and gradually increasing the Mellin's Food until a gain in weight is observed. Relatively large amounts of Mellin's Food may be given, as maltose is immediately available nutrition. The limit of assimilation for maltose is much higher than other sugars, and the reason for increasing this energy-giving carbohydrate is the minimum amount of fat in the diet made necessary from the well-known inability of marasmic infants to digest enough fat to satisfy their nutritive needs.

MELLIN'S FOOD COMPANY, BOSTON, MASS.

The Case for Coffee

Number Eleven

Coffee may well be regarded as an institution. Away back in 1610, Sandys, in describing his travels among the Turks mentioned "a drink called coffee which helpeth, as they say, digestion and procureth alacrity." The name and fame of Addison, Swift, Pope, Johnson, Goldsmith and many other literati are linked inseparably with the London coffee houses. Alehouse keepers in England undertook propaganda against coffee, called it a poisonous drug—but in vain. History has a habit of repeating itself. Prohibition in America is a *fait accompli.* Physicians realize and recognize that something must be substituted for the saloon. Some safe succedaneum must be provided for alcohol and for narcotics. These can be legislated out of existence, but human nature cannot be changed by law! Hence coffee will become, must become, more of an institution. It is neither narcotic, intoxicating nor habit inducing.

But coffee which encourages social gathering, interchange of thought, discussion of ideas, the inborn disposition of human nature in man or woman to foregather either in club, saloon or coffee house, will help to replace bad habits with good habits. For coffee —like its sister—tea—provides "the cup that cheers but not inebriates." The means to stimulate, n o t to deaden thought, to raise man, not to debase him, thus fulfilling its destiny and making good in its object as intended by Nature—the mother of us all.

Copyright 1920 by the Joint Coffee Trade
Publicity Committee of the United States

tended. Fortunately, simple as the instrument is, it is not an appliance that a patient can use except under the prescription and direction of a physician.

There are signs that Chlorazene is displacing other prior antiseptics. Certainly it serves best for general use against localized infection. A 1/10% solution is equal in efficiency to a 5% phenol solution. That is to say, it is fifty times stronger. And yet it is virtually harmless to the person and may be used in double the usual hypochlorite strength employed without irritating the wound or adjacent skin surface.

What is more, this agent, both in the powder or tablet form in which it is marketed and in solution, is quite stable. Without any appreciable efficiency loss solutions will keep for months in a stoppered container; this is another advantage over the hypochlorite, which changes almost from day to day. Solutions are quickly extemporized with the water-soluble tablets. In short, a more satisfactory antiseptic and germicide for all purposes could scarcely be devised.

It comes from The Abbott Laboratories, Chicago, whence requests for samples should be addressed. The company is sending out trial tubes of ten tablets each to those interested.

To conceive a food suitable for the newborn in each instance is by no means easy; yet it must be accomplished somehow. The problem presented is that of so modifying cow's milk as to meet individual requirements, with respect to its contained sugar, fats, carbohydrates, etc. This may be done by means of Mead's Dextri-Maltose. With this in hand, it is possible to make a satisfactory adjustment for each bottle-fed infant; a little headwork, after due examination of the stools and other observations, will indicate how to proportion milk, water and the preparation in question, for best results.

Mead's is not packaged for the laity but rather for the physician. It is an ethical article deserving recognition. No directions appear on the label. It is for the physician to supervise its use and to supply the necessary directions to mother or nurse.

Every doctor should investigate Dextri-Maltose in the interest of his infant feeding cases. Data and samples may be had from the makers, Mead, Johnson & Co., Evansville, Ind.

Since the year one or two or three, or certainly from very ancient times, the balsams of one sort or another have been recommended as remedies for catarrhal conditions of the respiratory tract. We find numerous references to them in old writings, historic and scriptural. They are accredited with having estimable remedial virtues, as applied to this class of cases.

But more recently, in 1918 in fact, a balsam of a species of leptotaenia, a drug plant hitherto unknown at least generally, was utilized by

"A Prompt Diagnosis is Half the Battle of Disease"—OSLER

Two New Time Saving Glucose Tests

FOR INSTANT USE IN OFFICE OR SICK ROOM

1. QUALITATIVE

Time, 45 Seconds — Cost, 1¾ Cents.

Directions: Roll up an F. A. F. Sugartest Strip, drop into test tube or any porcelain or enamel dish; add a little water, add 3 to 5 drops of urine: Boil. If liquid turns yellow, sugar is present.

Ten Times as Sensitive as Fehling's

F. A. F. SUGARTEST STRIPS

15 Qualitative Tests in a Vest Pocket Packet for 25 Cents.

2. QUANTITATIVE

Time, 3 Minutes. — Cost 15 Cents.

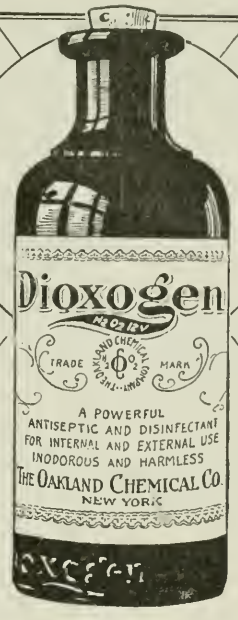
RAPID RELIABLE ACCURATE

F. A. F. SUGARTEST TUBES

Box of 10 Complete Quantitative Tests $1.50.

FRANCO-AMERICAN FERMENT CO.

225-7 SIXTH AVENUE, NEW YORK CITY



Safe Antisepsis

is the first consideration in the treatment of infected wounds. It is not difficult to kill most of the ordinary germs. The real difficulty is to kill the germs in an infected wound without at the same time injuring or destroying the bodily tissues. With Dioxogen, however, it is easy to accomplish this, for

Dioxogen

is a selective germicide. It seems to discriminate between the bad and the good — the agencies of abnormality and disease, and the forces of nature and health. Through its liberation of a large volume of pure oxygen, Dioxogen oxidizes—burns up — harmful and pathogenic bacteria and stimulates the physiologic activity of the tissues.

How different is the action of bichloride carbolic and similar bactericides. With these the higher their germicidal potency, the greater the harm they do to the tissues. Dioxogen however, exerts even greater antiseptic power, but instead of harming the tissues, gives impetus to the processes of healing and repair.

Dioxogen is like sunlight and pure air. It is a foe to germs and septic material, but a friend to the tissues of the body.

THE OAKLAND CHEMICAL CO.,

59 Fourth Avenue **New York City**

Krebs in the catarrhal sequences of influenza, with results which he expressed as very gratifying. His findings resulted in that excellent preparation which the Balsamea Co., San Francisco, Calif., are offering under the name of Syrup Leptinol. We note that it is restricted to the use of physicians, for dispensing or prescription needs.

The company will, no doubt, be pleased to send samples to those who wish to try it out clinically this winter in their respiratory cases.

The usual diet, as inquiry clearly shows, is deficient in the lime salts, leading to a form of demineralization which when long sustained accounts for many of the ailments addressing themselves to the doctor. The daily requirements for an adult are at least one gram to half as much again of calcium oxide. But the amount actually taken in the medium of food and water is considerably below that quantum, as a study of a great many dietaries shows.

Calcium we know is accessary to the action of rennin as well as the fibrin ferment concerned with coagulation of blood and exudates. It somehow stimulates phagocytosis, wherefore its deficiency leads to a weakening of the body resistance to disease; and in this connection the observation is interesting that in the early stage of tuberculosis the quantity of blood calcium is minus. Such ailments as urticaria, chilblains and at times oedema affecting the extremities are ascribed to impaired coagubility; in short calcium shortage is a serious matter. It may be remedied by suitable changes in the diet but with difficulty; to supply the deficiency in medicinal doses is easier. For this Fellow's Hypophosphates serves well; the preparation carries not only calcium but other inorganic salts vital to the maintenance of health, including iron and phosphorus.

So often and persistently is the stomach imposed upon in this day of second-rate restaurants and the falling off of quality even in the home fare, with constant resort to canned foods, and this coupled with the bolting of meals that indigestion except with the most robust comes as a matter of course; and with it all sorts of complaints referable to fermentation of partly digested food residues in the alimentary canal. But dietary habits are hard to change; the doctor will find it more practicable to prescribe digestants, thus assisting the stomach in its difficult task. Supplementary digestants, in regular doses, are especially needed by sedentary people, the elderly, and in general by those out of ordinary health and handicapped by atonicity of their musculatures. An excellent preparation for such folks is Lactopeptine. Laboratory tests show that a tablespoonful will digest one pound of egg albumin (or the whites of 18 eggs) in a little more than two hours.

Lactopeptine is also useful as a vehicle for such harsh and badly-borne drugs as potassium iodide, for example; not only does it

Needle vs. Spoon

In the administration of iron, arsenic, phosphorus and strychnine, subcutaneous methods are quicker, surer, and more satisfactory

Serum Ferrugineux (Fraisse)

contains iron cacodylate, strychnine cacodylate and sodium glycerophosphate in stable, safe solution, injectable without pain or subsequent irritation. Rapid gain in strength, improvement of appetite, increase in hemoglobin and red corpuscles, unattended by digestive disturbance, constipation, or other unpleasant features, proves the practical superiority of this means and this method over old-fangled administration per os.

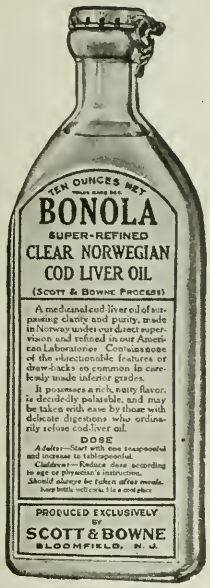
In neurasthenic cases, SERUM NEURASTHENIC (FRAISSE), without iron, assures prompt and satisfactory results

Sample and literature on request

E. FOUGERA & CO., Inc., 90-92 Beekman St., New York

A Product of Specialization

backed by the experience of half a century



BONOLA

the S. & B. Process Clear Norwegian Cod Liver Oil

is a revelation to the physician who may prefer to prescribe clear cod-liver oil—without admixture.

Bonola is made under a system of most exacting care, that starts as the oil is expressed from the fresh livers of the Gadus Morrhua, in our own plants in Balstad, Lofoten, Norway, and culminates in our own American Laboratories.

Stocked by leading Wholesale and Retail Druggists.

A liberal sample of Bonola will be sent physicians upon request.

SCOTT & BOWNE, BLOOMFIELD, N. J.

Makers of Scott's Emulsion.

20–2

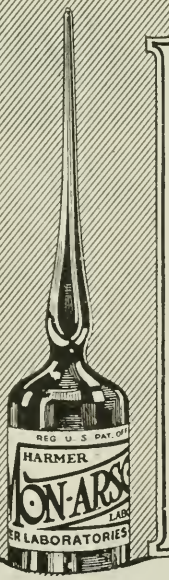
MON-ARSONE for SYPHILIS

NON-TOXIC

MON-ARSONE, administered in the proper dosage, will not cause such distressing reactions as nausea, headaches, fever, etc. This improved arsenical is so non-toxic that it has been repeatedly administered to numbers of total arsphenamine intolerants without causing the slightest untoward results.

As Mon-Arsone is at least equal therapeutically to arsphenamine you can get the same clinical and serological results without causing your patient discomfort and inconvenience.

Send for complete literature.



CONVENIENT

MON-ARSONE, being absolutely stable in solution, enables us to supply the therapeutic dose already dissolved in 10 c.c. of sterile, distilled water which solution is ready to inject after breaking the neck of the hermetically sealed ampoule. A 10 c.c. all-glass Luer syringe is used.

This ease of administration is not only a decided time saver but you are sure at all times of the sterility and uniformity of the drug.

Prices	*Ampoule*
Dose A—1 *gram*	$1.50
Dose B—1½ *gram*	1.75
Dose C—2 *gram*	2.00

THE HARMER LABORATORIES CO., Lansdowne, Pa.

serve to disguise the disagreeable taste of such drugs but somehow it makes the stomach more tolerant toward them. That is something to remember.

For many years past the W. D. Allison Company, of Indianapolis, Ind., have been supplying office equipment of the better kind for doctors. Their tables, cabinets and treatment chairs are to be found everywhere, in town and city.

This month in our journal they are showing an excellent examining table, known as the Rochester Improved. This model has a folding step. It serves equally well as an irrigating table, and in fact as a piece of furniture for the average office is all it should be from the standpoint of appearance and utility. And it is built for long service. Good construction is characteristic of all Allison furniture. One who buys any of their pieces has something really good and substantial.

The company is also showing an irrigating table that for service and compactness is a model. Circulars describing both of these tables may be had by writing.

The first referred to is a modification of the table that is being used right along in the clinics at Rochester, Minn.

Oil of sandalwood has long been esteemed as a good internal remedy for the ravages of the gonoccocus in the urinary tract, from the kidney tubulus to the urethral meatus. In the treatment of such consequential disorders it is without doubt a valuable adjunct to the dietary and local treatment by injection or irrigation. Some insist they can cure gonorrhea without injections, relying only on certain internal remedies, as that mentioned, and exclusion from the diet of meats, condiments and so forth, as well as alcoholic beverages.

In this connection it is recalled that a French chemist, Astier by name, has provided for internal use a refined sandalwood oil, which is exceptionally well borne even in large doses long continued. On the whole, also, its action is said to be more decided, as judged by results. The preparation is being marketed in this country by Geo. F. Wallau, Inc., of New York City, under the name of Arheol.

The ordinary oil, as is well known, frequently upsets the stomach and is otherwise militated against by collateral faults. Arheol is absolved from these faults, according to its sponsors.

Many users regard Calcidin as the greatest of winter remedies, barring none. Certainly the general need for it is such as to entitle it to an outstanding position. The Abbott Laboratories are busy as usual meeting a heavy seasonal demand for this favorite on their list. It is also known chemically as iodized calcium, being a compound of iodine and basic lime.

In general, Calcidin serves where the iodides before its advent were commonly used. It may wisely be given in their stead for the reason that it is better borne. Seldom if ever

THE MODERN DRESSING

NON-ADHERENT
STERILIZABLE

TRANSPARENT
WATER PROOF
OCCLUSIVE

Successfully meeting the professional requirements for a dressing material of this kind that will not deteriorate with age or atmospheric conditions.

Prepared in **PERFORATED** and **IMPERVIOUS** forms.

IMPERVIOUS CELLOSILK besides being more useful and less expensive than oiled silk, etc., for use as wet dressing covering, is also useful for many purposes which the other materials have proven inadequate. Useful for burns and drainage material.

PERFORATED CELLOSILK excels as a dressing for all granulating wounds and those that require air and drainage. Will not adhere to the newly forming tissues—progress of healing watched through the dressing.

CELLOSILK PRICE LIST

Perforated Cellosilk. Double Weight Only.
"Standard Perforate," Roll 9 in. x 12 ft..$2.00

Impervious Cellosilk
"Standard" (single weight), Roll 9 in. x 12 ft. $1.25
"Standard Heavy" (double weight), Roll 9 in. x 12 ft.....$1.75
"Hospital" (single weight), Roll 18 in. x 12 ft. 2.25
"Hospital Heavy" (double weight), Roll 18 in. x 12 ft..... 2.75

NOTE—The double weight is stronger, easier to handle and can be re-used. The 9 in. rolls are packed in cylindrical cardboard containers. It is advisable to have both Perforated and Impervious Cellosilk on hand for constant use.

Sold through all supply houses handling Physicians and Surgeons Supplies. Write us if your regular dealer cannot supply you.

MARSHALLTOWN LABORATORIES, INC. **MARSHALLTOWN, IOWA**

What *Better* Laxative?

—especially for Kiddies

THE pink, sugary little bits look and taste like candied fruit.

ANALAX

The Fruity Laxative

A simple combination of pure fruit juices with selected agar-agar and phenol-phthalein. Action is gentle, certain, non-griping.

Especially suited to women patients also.

Test quantities to physicians on request.

McK & R

Box of 100 pastilles to hospitals.

McKESSON & ROBBINS, Inc., Manufacturing Chemists

Established 1833

91 Fulton Street, New York

does it distress the stomach as the inorganic iodides are wont to do nor give rise to iodism acne. But its best work is done in acute respiratory ailments. It is effective in bronchitis, whether acute or chronic. Experience shows that pneumonia is less likely to follow in influenza when it is given; in one series of more than 1800 cases reported, it did not develop in a single instance. For catarrhal croup there is no better remedy, pushed to effect. Being readily assimilated, it makes the quick forceful impress necessary in this dangerous disease of the young.

Calcidin is now available in troches, with anesthesin, a topical analgesic like cocaine but virtually non-toxic. This is excellent wherever there is throat soreness or irritation leading to cough.

An effort to avoid unsightly scars following surgical operations has often been made, one kind of suturing material after another being used to this end, as well as dressings designed to prevent infection. Silk is the oldest of all suture materials; it was first used plain and later braided. Silver wire, catgut, horsehair, silk-worm gut and celluloid thread are among the many kinds employed from antiquity to the present time.

The well-known surgeon, Ochsner, says that most trouble follows the use of a readily absorbed material. On the contrary, one that is not easily attacked by body cells and fluids serves best; with such there is no rush of leucocytes to the suture point, no hyperemia, no liquifaction, which are all elements in scar-formation. He uses a chemically prepared silk, which has the smoothness, stiffness and impenetrability of horsehair, but has about three times the tensile strength of this material, besides other advantages.

Huston Bros. & Co., 30 East Randolph St., Chicago, sell it under the brand name, Equisetene. It comes in reels of thirty feet.

The smallest town has its printer in these days, who often is more willing than capable. But usually he does his best, with such limited facilities and talents as he has, and manages to satisfy most of his customers for the simple reason that people as a whole are quite easily satisfied, when it comes to printed things, which certainly is not as it should be.

Nor is the doctor absolved from this general fault. Too often in his eyes a letterhead is a letterhead, a bill form is a bill form, one serving as well as another the purpose for which it is intended. But this is a species of slovenliness that no professional man can afford, especially if beginning a career. Appearances count; we are all judged thereby. The appearance of prosperity is in itself a help to prosperity. We are judged according to our dress, our equipage, our office equipment and even according to the stationary we are using.

When good stationery can be secured at about the same price as poor, or very little more, why buy the latter quality? In these parcel post days the doctor in the remotest village may be served by the best of city

Fischer Bargains
IN USED
Electro Therapeutic
APPARATUS

Begin the New Year by saving money. Here are sixteen bargains in perfectly good but slightly used apparatus. Each article is of the type which we sell today, and is guaranteed to give the best of satisfaction. Act now and get detailed information. Simply check items of interest to you and return this list.

☐ **No. 7**—Catalog No. 510, "H5" Outfit—complete with Tube Stand and all accessories. Solid Mahogany Cabinet needs refinishing, which work will be included in the price of. List..$260.00

☐ **No. 8**—Catalog No. 490, Style "C" Combination Cabinet Outfit, complete with all accessories. In A1 condition. New Electrical Top will be furnished. Golden Oak Cabinet. Motor and Transformer wound for 110 Volts, 60 Cy. A. C. List.....$160.00

☐ **No. 29**—Catalog No. 510—"H5" Cabinet. Solid Mahogany. Will have repaired and placed in first-class condition. Accessories not included. List $150.00

☐ **No. 30**—Catalog No. 534—No. 2 Interrupterless Transformer, Mahogany Finish. No accessories. Cabinet slightly scratched, and to be sold "as is." List.....$400.00

☐ **No. 34**—Catalog No. 510, "H5" Outfit—complete with Tube Stand and all accessories. In excellent condition throughout. Solid Mahogany Cabinet. List.....$275.00

☐ **No. 46**—Six 0-10 Milliampere Meters. Can be used with any type High Frequency X-ray Apparatus, for accurately measuring the current passed up to 10 M. A. Nickel-plated and in excellent condition. List, each.....$7.50

☐ **No. 47**—Roth Rotary Converter, wound for 220 Volts D. C., delivering 140 Volts at 60 Cycles A. C. —1.6 K. W. Capacity. In first-class condition. List.....$95.00

☐ **No. 75**—Catalog No. 510, "H5" Outfit—complete with Tube Stand and all accessories. Pearl Gray Cabinet needs refinishing, which work will be included in the price of. List.....$250.00

☐ **No. 77**—Portable "H" (T. P. Type), in low Mahogany Cabinet, same power as our "H4" and "H5" Apparatus, in excellent shape. No accessories except connecting cord. List.....$145.00

☐ **No. 80**—Catalog No. 534—Interrupterless Transformer No. 2, Mahogany Cabinet, with Oil Transformer, Rheostat, Synchronous Motor with Rectifying Wheel and Protecting Disc, Milliampere Meter and Connecting Cord. No accessories included in price. Cabinet slightly scratched, but outfit in excellent condition mechanically. 220-60. List.....$375.00

☐ **No. 81**—Fischer Tube Stand, Mahogany Finish, our Catalog No. 1005. Slightly marred, but in as good working order as new. List.....$45.00

☐ **No. 86**—Low "H" Mahogany Cabinet, having same power as our "H4" and "H5" Apparatus, in excellent shape. No accessories except connecting cord. List.....$130.00

☐ **No. 96**—"H3" Outfit, Mahogany Cabinet as described under Catalog No. 512, with all accessories. List $230.00

☐ **No. 97**—Fischer Tube Stand, Mahogany Finish, our Catalog No. 1005. Slightly marred, but in as good working order as new. List.....$45.00

☐ **No. 100**—Catalog No. 534, "2A" Interrupterless Transformer in Mahogany Cabinet, for 220 Volts, 60 Cycle A. C. Price includes Mahogany Cabinet, Transformers, Synchronous Motor with Rectifying Device, Rheostat, Milliampere Meter and Connecting Cord. Also all accessories as listed in our Catalog under No. 534. List $525.00

☐ **No. 104**—Catalog No. 490, Style "C" Combination Cabinet Outfit, complete with all accessories. In A-1 condition. New Electrical Top will be furnished. Golden Oak Cabinet. Motor and Transformer wound for 110 Volts, 60 Cycle A. C. List.....$225.00

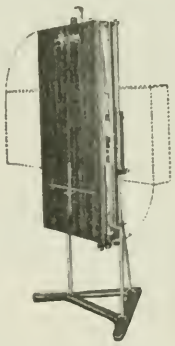
Check Item of Interest, detach list and return today to

H. G. FISCHER & CO., Inc.

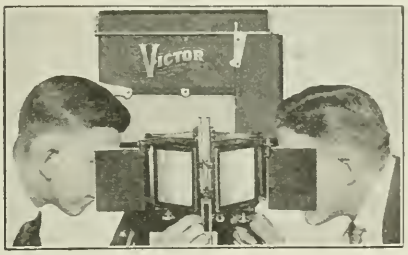
2337-2343 Wabansia Ave. Chicago, Ill.

VICTOR

New Victor Developments

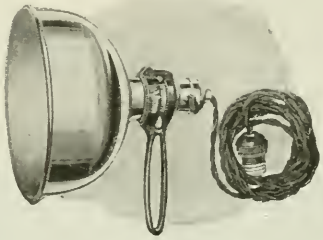


COMBINATION STEREO-PLATE SHIFTER—Instead of two separate apparatus, for Vertical and Horizontal stereo-radiographs respectively, this service is now available in one unit. Two sizes of plates can be used, 11x14 and 14x17. Is mechanically correct, easy to operate, conserves space.



"MULTIPLEX" STEREOSCOPE—No more can it be said that viewing of stereo-plates causes eye strain. This new Victor model has every adjustment necessary to relieve it—even to bringing into perfect stereo vision plates which are out of alignment due to incorrect position at time of exposure. Two can study the same plates at the same time, each observer having an independent set of adjustments.

THERMO-THERAPY LAMP—Here is a therapeutic lamp that does not have a focal or "burning" point. This Victor lamp throws its rays evenly over the entire field. Regardless of the distance lamp is held from part under treatment, it is always comfortable to patient—an even distribution of heat that is entirely therapeutic in effect.



FULGURATION COIL—This is the Victor response to the demand for a specialized apparatus for treatment of bladder tumors with high frequency fulguration. Delivers a smooth current that is without any faradic sensation. The first and only fulguration coil with a *fulguration meter* to indicate relative intensity of heat produced, thereby making possible the duplication of technique. Utmost refinement of control.

Separate descriptive bulletin on each of the above now ready. Write us which are of interest to you and further details will be promptly forthcoming.

VICTOR X-RAY CORPORATION

General Offices and Factory:
Jackson Boulevard and Robey Street
CHICAGO

Sales Offices and Service Stations in all principal cities

printers, such as the Consolidated Printing Co., 4119 Lincoln Ave., Chicago. They specialize in doctors' stationary.

In new hands and entirely reorganized since the war the Heyden Chemical Works, New York, reports a very satisfactory business. Along with other fine chemicals suiting the strictest medicinal requirements much of the salicylic acid in the market, as well as its salts, are produced in their laboratories; with fifty or more years of research and manufacturing experience behind them, it is reasonable to believe that these people know how to turn out a thoroughly finished product. No departure from their previous high standards has been made, even in the slightest degree. Their label at the present time, as always, stands for the very best in medicinal chemicals.

And that is something to know in these days when inordinate desire for profits leads the unscrupulous to cheapening their output, and sometimes to falsify their merchandise in the grossest manner; aspirin and the salicylates are often manipulated and the spurious drugs palmed off as genuine. Hence it is well to regard the label when buying, and to specify the brand when prescribing.

The Therapeutic trend is apparently away from narcotic drugs; the opiates have had their day in medicine. Cocaine has very largely given way to substitutes like procaine, which is only one-seventh as toxic. For the relief of pain, morphine likewise has been displaced by safer agencies such as benzyl benzoate for instance, a very satisfactory anodyne in dysmenorrhea and other conditions due to spasm of smooth muscle tissue. And trional, chloral and other old-time drugs once commonly used to induce sleep have slowly but surely fallen into the discard.

We have safer and better remedies for insomnia. Many are using a passiflora preparation, made in Atlanta, and known as Pasadyne. Such users report that it acts very nicely in wakeful conditions, with fidgeting and tossing about; as well as in many nervous or hysteric cases needing sedation. It appears to bring calm and rest without doing collateral injury to the organism. Women, who more than the other sex require such treatment, are in most instances safely tided over emotional crises with its use. Many doctors would not be without it.

Pasadyne is made in the laboratory of John B. Daniels, Atlanta, Ga. A sample quantity may be had by anyone willing to test it clinically in a suitable case or two.

It is a fact, borne out by experience from the earliest times recorded in history, that suppression of segregated prostitution in any community nilitates against the virginity of respectable home-girls and the chasity of women in that community. It is to such that the young predatory male turns when the public consort is denied him. The society,

BURDICK MERCURY VAPOR QUARTZ LAMPS

Rigid laboratory and clinical tests with these new quartz lamps have established the superiority of their construction and great effectiveness in service.

Distinctive Features

NEW mercury quartz generator gives the highest known ultra-violet ray production. By means of a unique valve rectifier this generator operates on alternating current with as much satisfaction as on direct current.

SPECIAL condensing reflector, adjustable to any angle for all positions in giving treatments, projects the actinic rays in great volume through the diaphragm opening in the casing.

COMBINATION of these features in the new Burdick Air-Cooled Lamp enables the general practitioner to do much of the local skin and cavity work which formerly required two lamps.

BURDICK Water-Cooled Lamp contains the most efficient quartz generator possible to obtain. It is equipped with many mechanical features which adapt it particularly to the use of the specialist in actinotherapy.

Doctors passing through Chicago will find an interesting exhibit at our Display Parlors. Opportunity is provided to observe the operation of the new lamps in practical test demonstrations.

Attractively illustrated catalog "M" with complete information is yours for the asking.

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BURDICK CABINET COMPANY

2700 Atlantic Ave.,
MILTON, WISCONSIN

Clinix X-Ray Plant

Send coupon for catalog giving complete description.

Name .....

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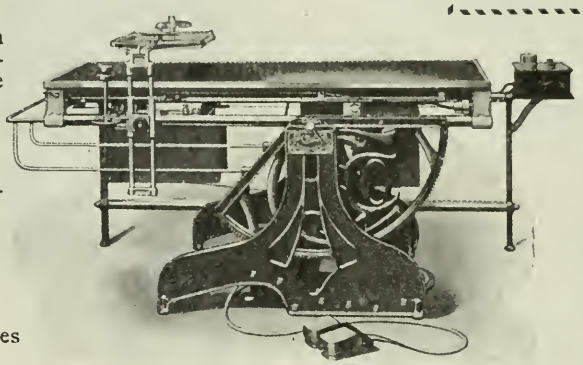
C. M.

For every known application of X-ray in Medicine and Surgery.

Perfectly balanced. Motor driven.

Self Excited
0 to 30 Milliamperes
3 to 5 Inch Gap



Instant and complete diagnosis by fluoroscope and film.

At Your Finger Tips in Your Own Office.

Any Angle. Stereoscopic.

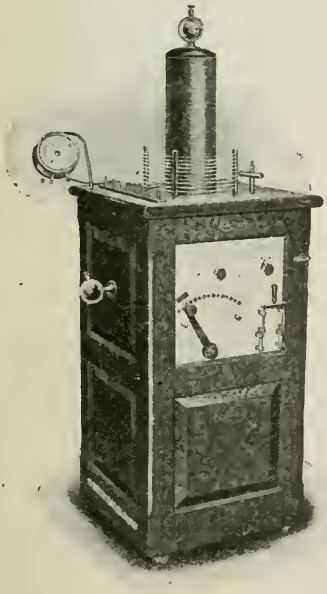
U. S. Patents: Dec. 19, 1911; April 22, 1913; Feb. 29, 1916; Aug. 7, 1917. Also patented in foreign countries.

Transformers and Control Attached to and Form Part of Table. No Overhead Trolley.
Essential to and within the means of every Physician and Surgeon.

No Transferring of Patients from One Piece of Apparatus to Another.

Campbell ELECTRIC CO. LYNN, MASS

DOCTOR: Why Not Conserve Your Skill?



Save Your Time and Strength and Do More by Specializing. Build Up An Office Practice.

You can serve a greater number, and better.

Ultimately, you will conserve your efforts and skill by specialization and the concentration of your practice to Office and Hospital exclusively. The best way to start is by installing efficient apparatus that is not portable, thus requiring the patient to come to you.

THE "HOGAN" HIGH FREQUENCY

Will help you get Started RIGHT

Superior in service and construction.

Price Away Below the Pre-War Price of any apparatus on the market equal in Service, Construction, or Convenience.

Write for "Simtech" and the facts. It May Save You $250.00.

Manufactured by

The McIntosh Battery & Optical Co.

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McIntosh B. & O. Co., 223-233 N. California Ave., Chicago, Ill.
Gentlemen: Please send me a copy of "Simtech" and the Facts about the "Hogan."

Name .....

Address .....

therefore, that brings this about, and at the same time withholds contraceptive measures, may well be charitable towards unwedded mothers. But unfortunately, society is not.

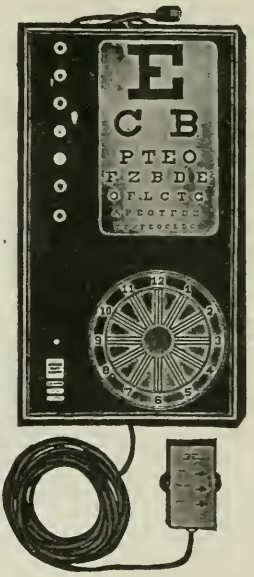
However, there are asylums for those in trouble, where they are cared for, confined, and looked after till the end of that ordeal which has been imposed upon them. The Woodlawn Maternity Home is such a place. The management will even find a home for the infant, parents to adopt it, in case the mother is not in position, as often she is not, to rear to adolescence the infant she has brought into the world.

The doctor at times has to recommend a retreat of this sort; here is one to bear in mind, one he can recommend with a good conscience.

Although hemorrhoids are easily disposed of by a deft operator, under local anesthesia, many people absolutely refuse to submit to knife or cautery. It then becomes a task for the doctor to relieve by topical applications the distress which piles impose. Of such applications one of the oldest and most convenient in use is the suppository; carrying astringent and analgesic drugs, which in this oleaginous vehicle are slowly and steadily released to the affected mucosa, very satisfactory results may be expected from such a form of treatment, when well selected.

Propaesin Suppositories, which are offered by the Ernst Bischoff Co., 81 West Broadway, New

MODEL NO. 15



Green Test Cabinets

combine accuracy, correct illumination with positive control and are attractive in appearance.

Prices range from $22.50 to $67.50 and we can make prompt shipment.

We illustrate Model No. 15 at $22.50. Send for descriptive circular.

WOLVERINE OPTICAL CO.
Stevens Bldg.
DETROIT, MICH.

Break ends — Expel air from tubing — Inject

Always Ready For Use!

Solution Arsphenamine-Lowy (S.A.L.) has the advantage of being available for instant use, wherever and whenever needed. Requires no further mixing, treating or apparatus. A complete unit for every treatment.

The safety and purity of S. A. L. is guaranteed by biological, chemical and clinical tests. It is prepared under license by the U. S. Public Health Service and accepted by the A. M. A. Council on Pharmacy and Chemistry.

Write for complimentary copy of our book "Medical Progress In The Treatment of Syphilis," (limited Edition). Write for copy today before supply is exhausted.

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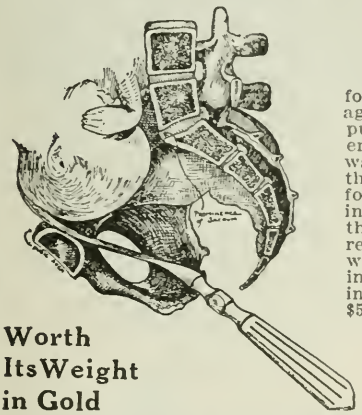
START the New Year RIGHT

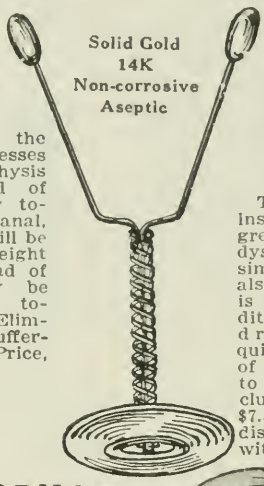
Get the latest Surgical devices and be sure that the quality is the best. All Huston Goods are sold on "money back" guarantee.

THE NEW OBSTETRICAL SHOE HORN



Worth Its Weight in Gold

In cases where the foetal head presses against the Symphysis pubes instead of emerging directly toward the birth canal, this instrument will be found worth its weight in gold. The head of the foetus may be readily deflected towards the canal. Eliminates hours of suffering and danger. Price, $5.00.



No possibility of injury from corrosion. Not the slightest irritation. Absolutely safe and sure. Inserted very easily.

Closed circular base if desired.

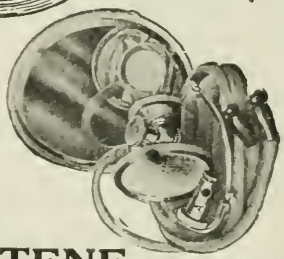
The value of this instrument is very great in cases of dysmenorrhoea and similar conditions; also wherever there is a catarrhal condition or where drainage is required; also in cases of sterility. Sold to physicians exclusively. Price $7.50 with ¾-in. disk base, or $8.50 with 1-in. base.

THE NEW HUSTON'S AKOUOPHONE

(January Patent)

A new stethoscopic principle embodied perfectly (both scientifically and mechanically).

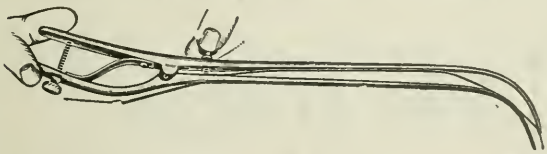
Enabies you to detect subcrepitant and sibilant rales, feeble cardiac and haemic Murmurs, ventricular lesions, acute pericarditis, etc. The **contrast in sounds** that **Huston's Akouophone** gives you makes sure of their pathologic character and clinches your diagnosis. Mechanically **Huston's Akouophone** is constructed of two perfect domes, the receiving surfaces of which are covered by specially prepared white xylonite non-sensitive to atmospheric pressure—hence all auto-adventitious sounds are excluded entirely. Gives the normal sound, also the accentuated sound, also graduates all sounds as you wish. Price.....$4.75



Huston's New EQUISETENE Price, $4.75

This new skin suture material can be boiled any number of times; is uniformly smooth; has many times the strength of horse hair; will not break when knotted; non-absorbable and very economical. The price is only 2c a foot. Send us $1.20 for two large sample packages. Huston Brothers Co. are exclusive vendors of this material in this country. Dr. Ochsner of Augustana Hospital, Chicago, says—"Equisetene is, I believe, without a fault. I would not think of going back to the old suture materials under any circumstances."

THE NEW JOHNSON KOLMANN DILATOR



Ask Any Physician

who has used the new Johnson Kollman dilator, and he will tell you that it is a very meritorious instrument. This very simple and satisfactory Urethral Dilator and Catheter combined positively will do the work of the $50 Kollman instrument. It costs you only $12.50. Can be used without danger of lacerating and will pass through very tight strictures. Can be dilated into the desired size in from 10 to 20 minutes. This is an instrument that you **really should have.** Order it today.

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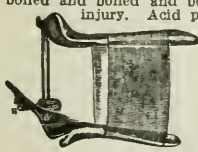
We gladly send you free samples of our new Indestructible Zyl Rubber Sheeting. Guaranteed for five years. Can be boiled and boiled and boiled. Boil as often as desired—boil in lysol if you wish; then run a hot iron over it without injury. Acid proof and practically indestructible, it costs only $5.00 per yard (full 36 inches wide).



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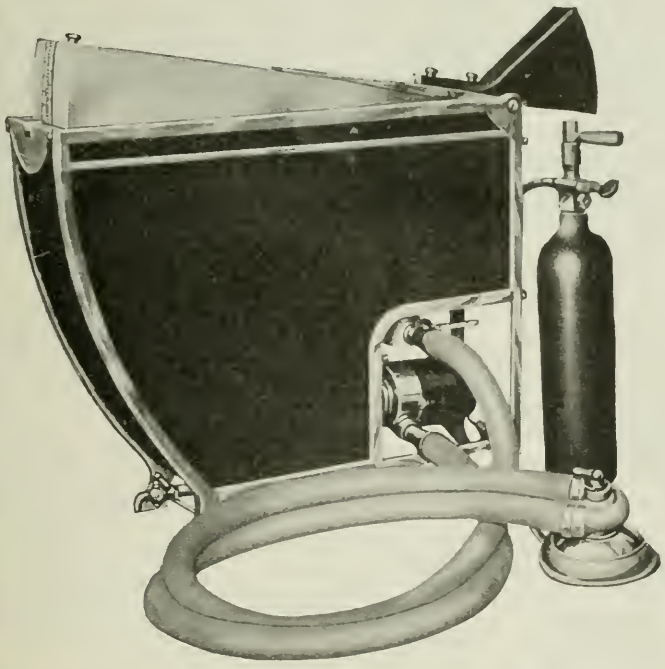

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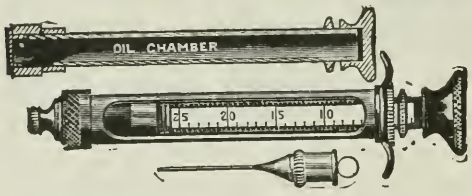

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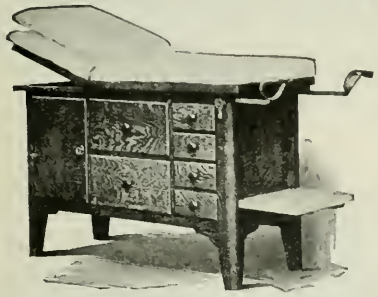

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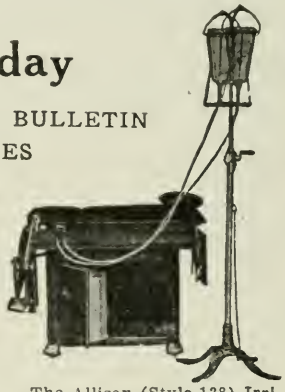

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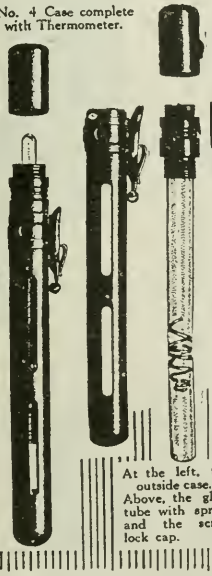

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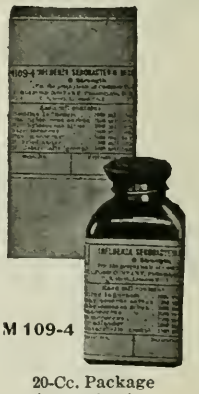

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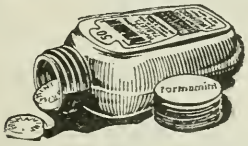

conclusively proved their value. Their frequent use, by both the well and the sick, helped materially to limit the spread of communicable diseases, especially in many a home where the intimacy of family conditions essentially increased the dangers.

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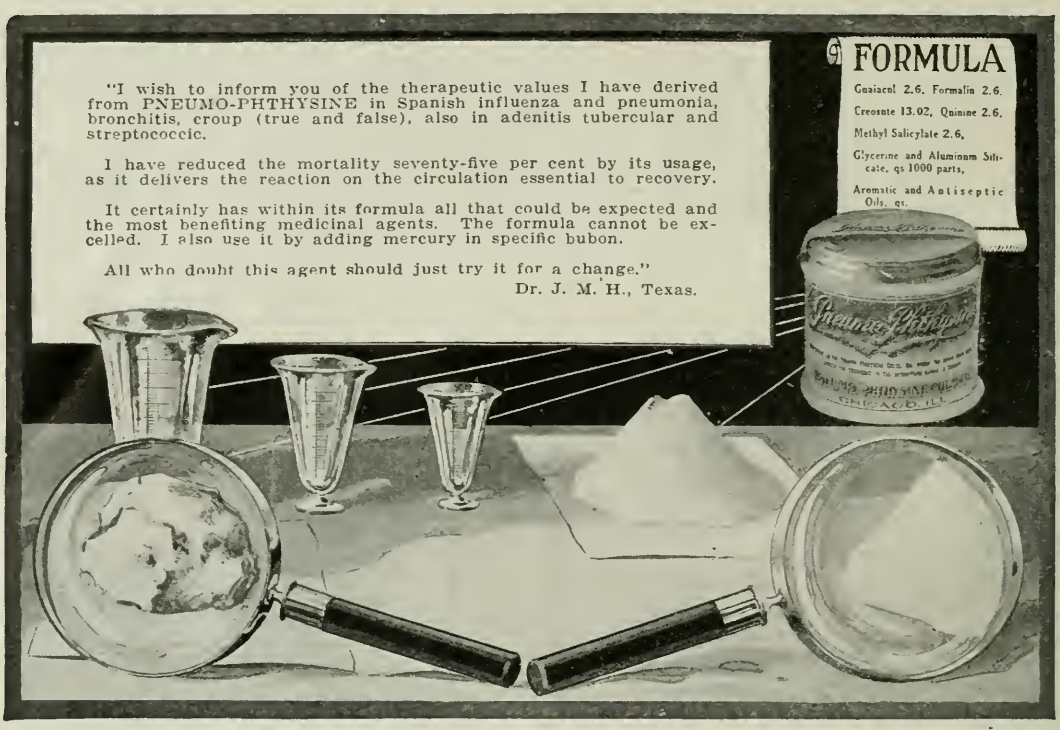
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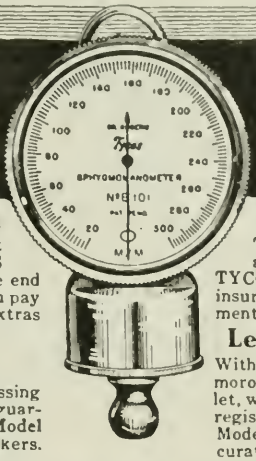

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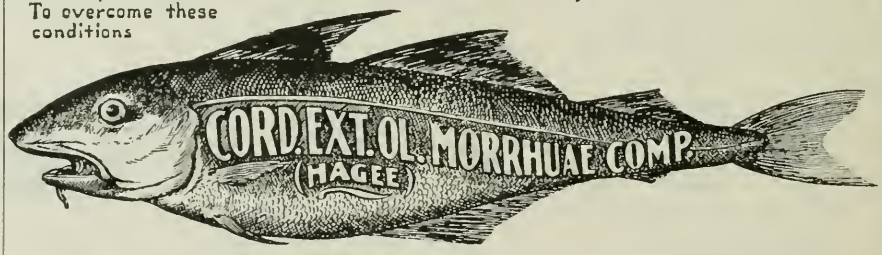

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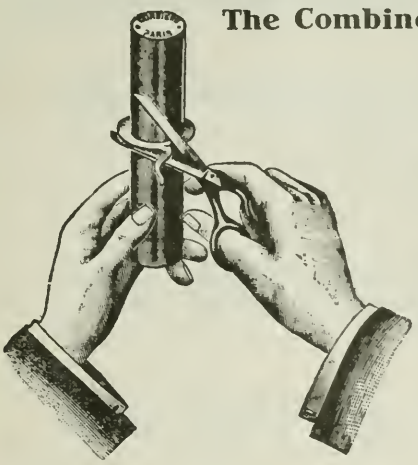

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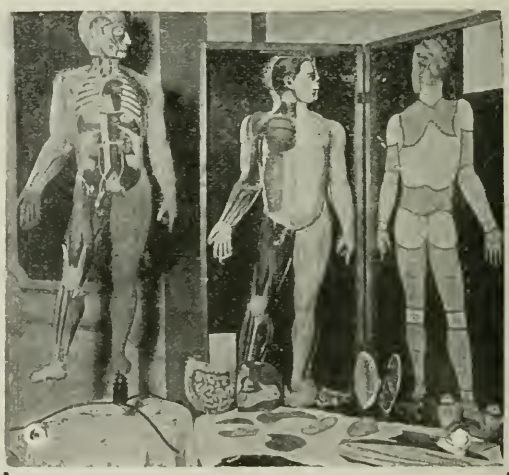

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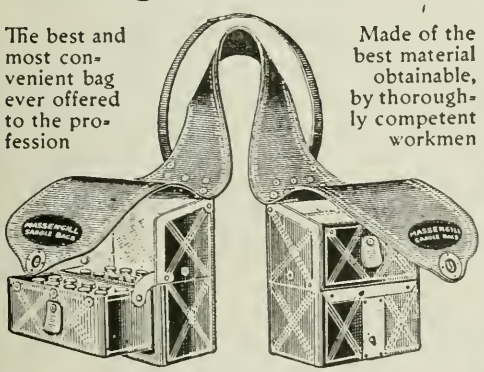

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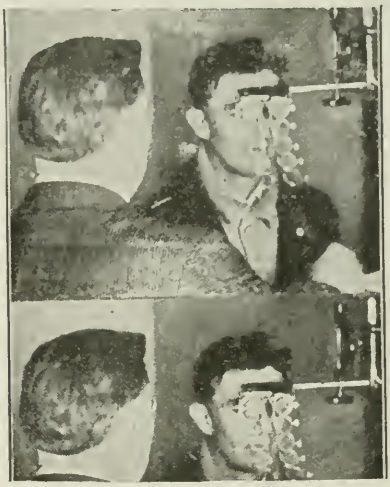

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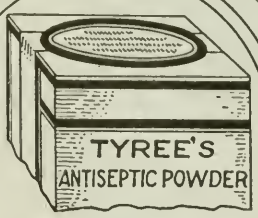

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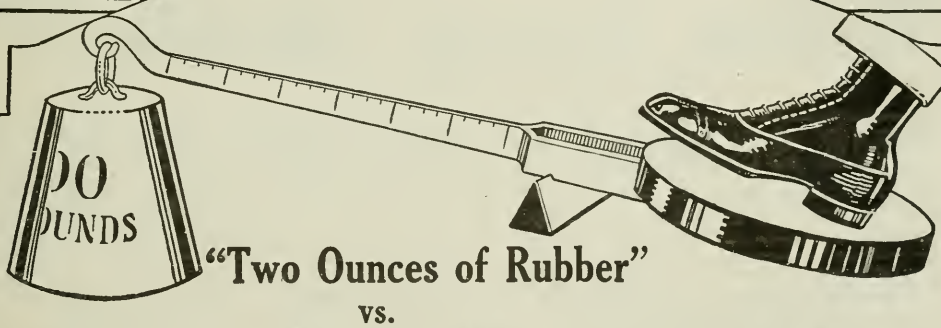

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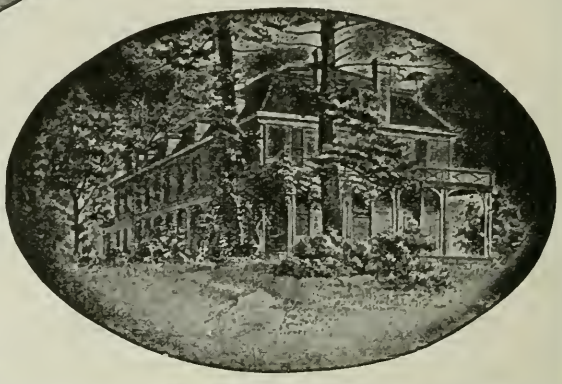

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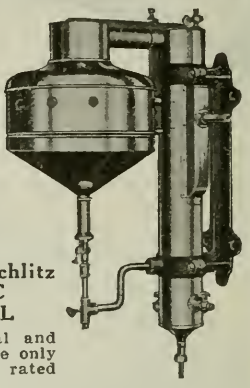

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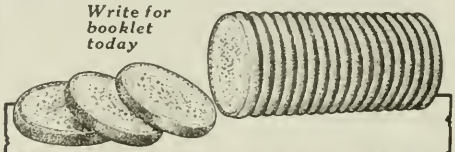

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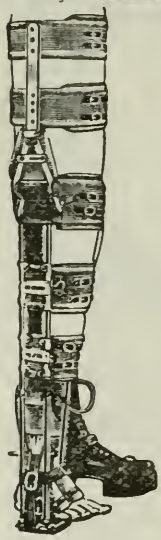

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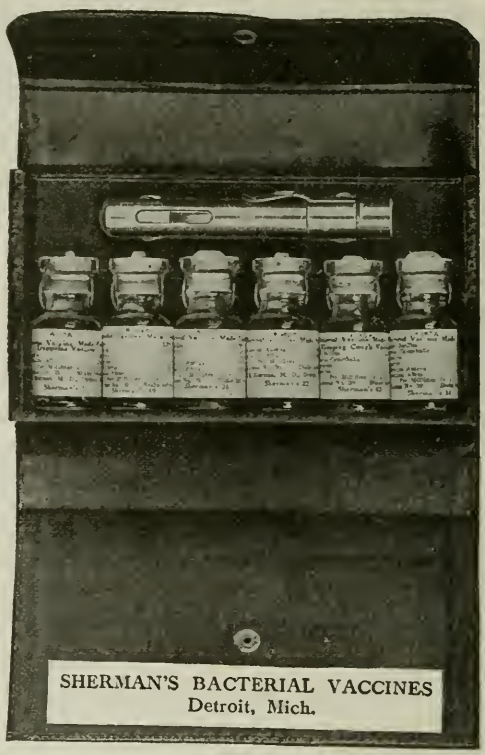

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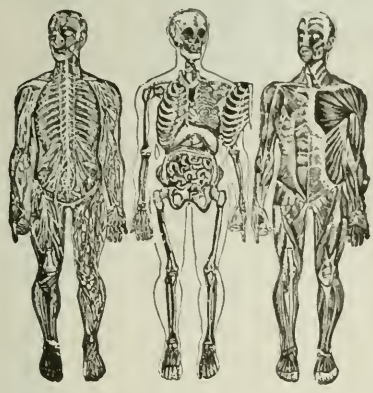

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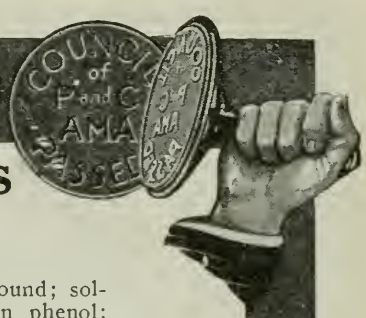

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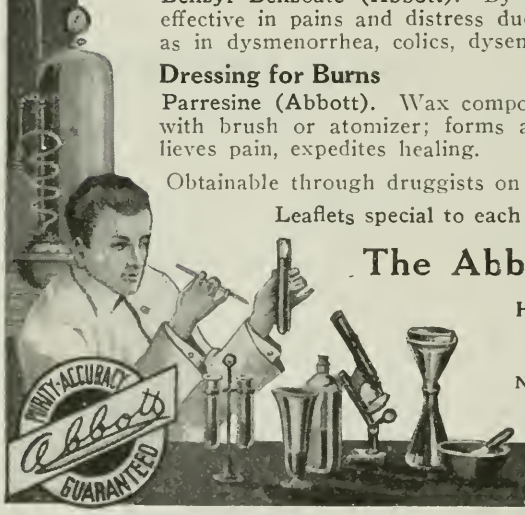

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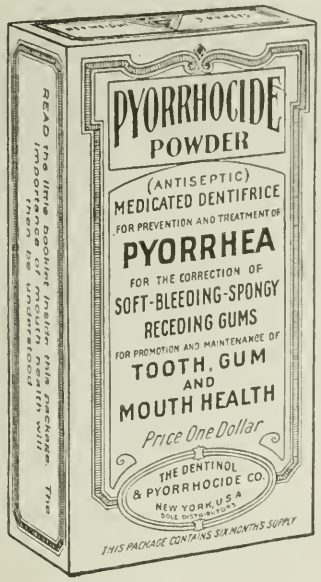

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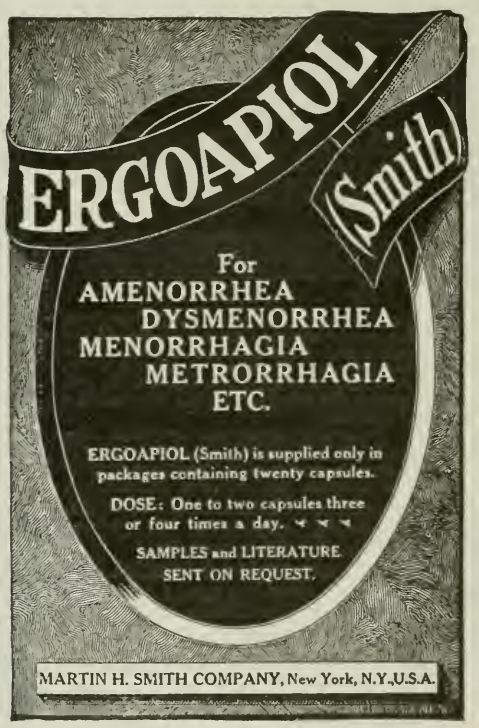

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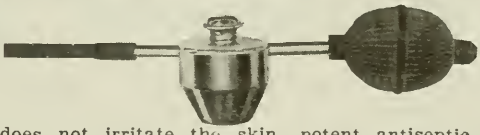

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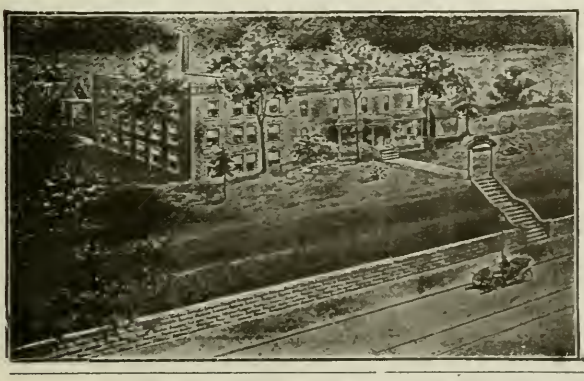

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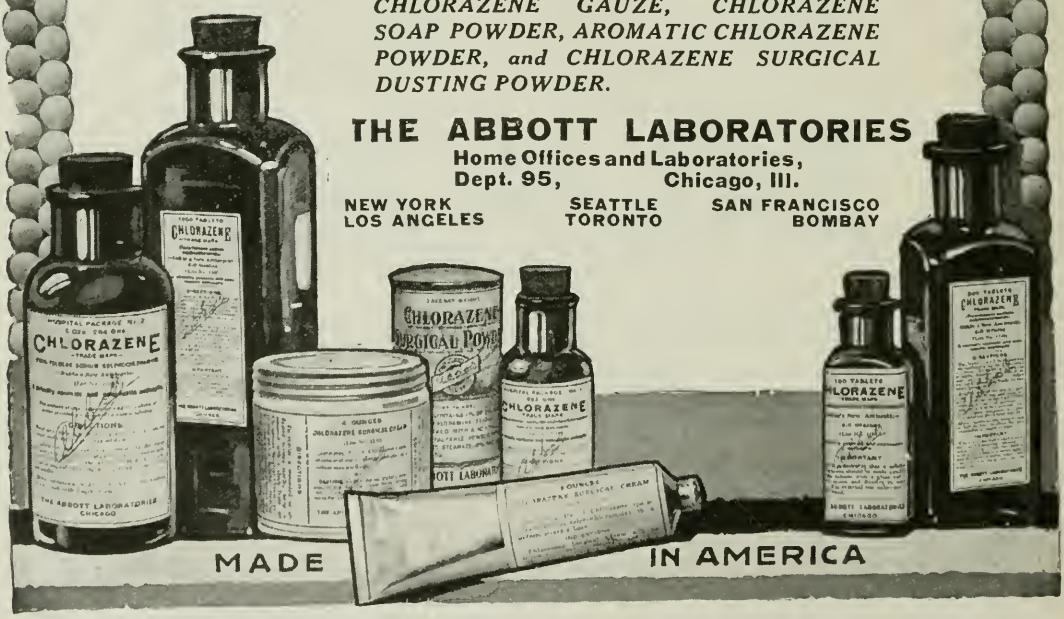

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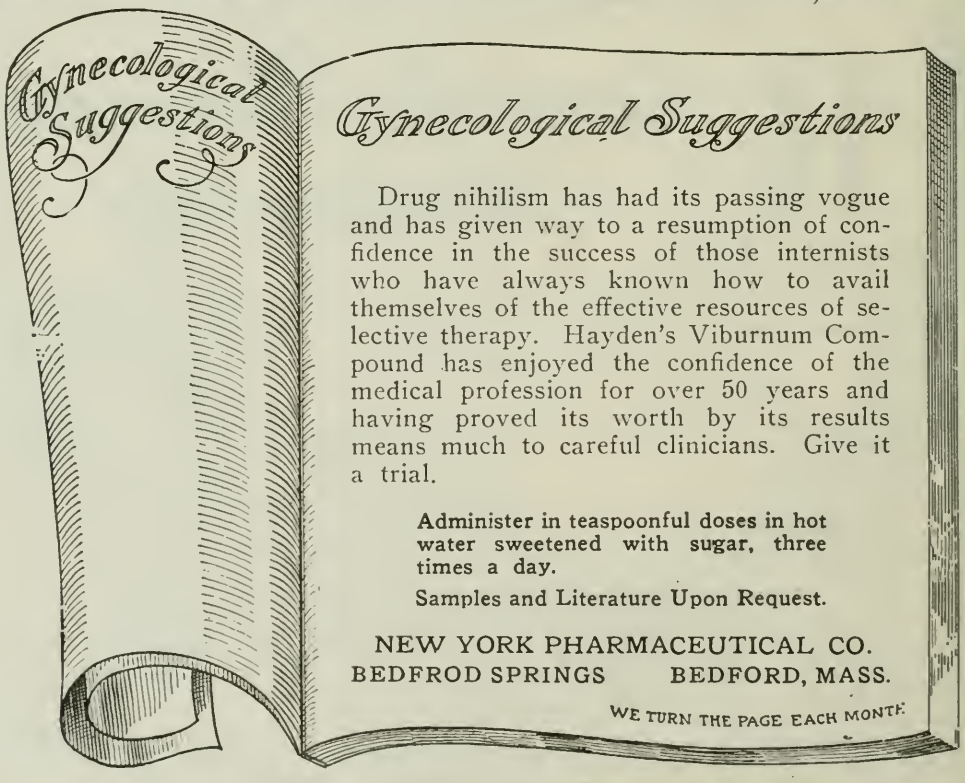
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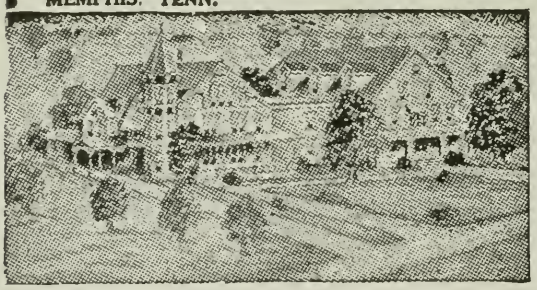

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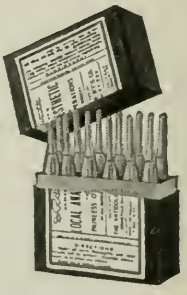

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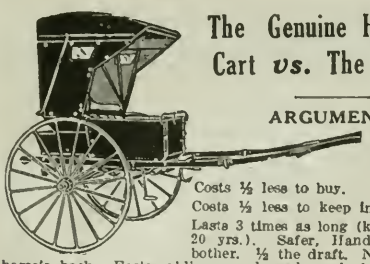

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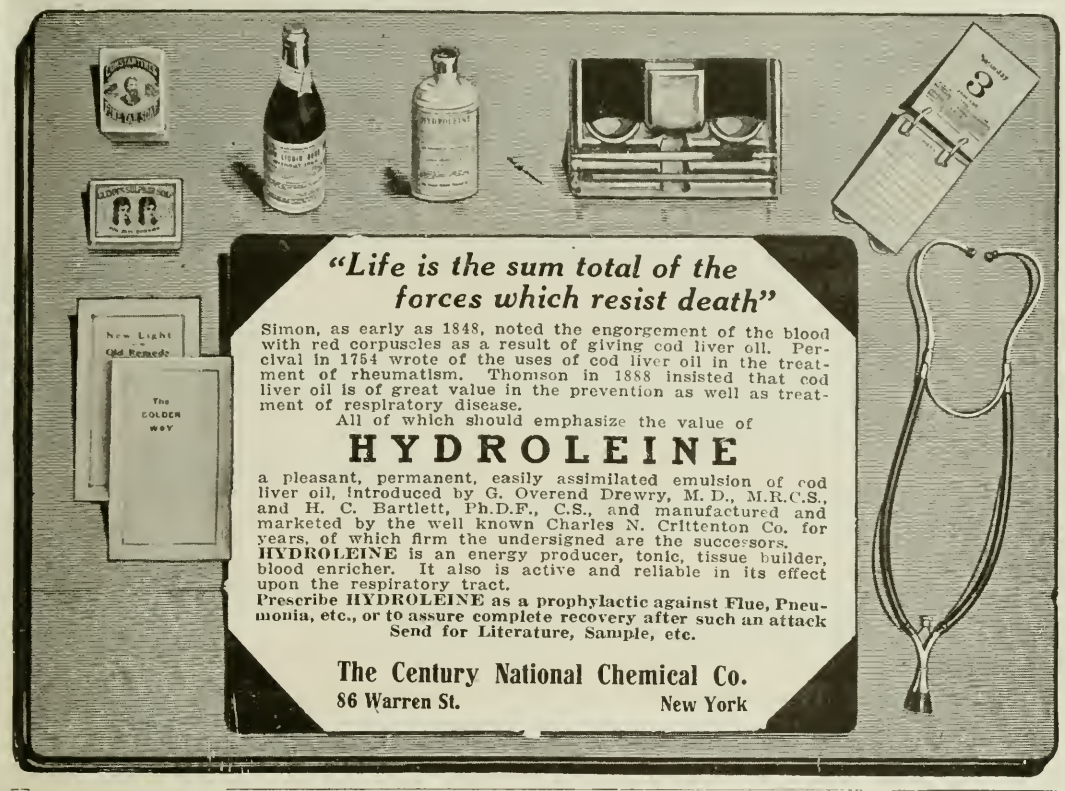
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